

Comprehensive Long-term Environmental Action Navy

CONTRACT NUMBER N62467-04-D-0055



Contamination Assessment Plan for Groundwater Monitoring and Free Product Evaluation at the Former Bulk Tank Facility

Naval Station Mayport Jacksonville, Florida

Contract Task Order 0031

July 2010



NAS Jacksonville Jacksonville, Florida 32212-0030



Document Tracking Number 10JAX0084

July 14, 2010

Project Number 112G00412

Commander, Southeast Naval Facilities Engineering Command ATTN: Beverly Washington (Code OPA5) 135 Ajax Street North, Building 135 Naval Air Station Jacksonville Jacksonville, FL 32212-0030

Reference:

CLEAN IV Contract Number N62467-04-D-0055

Contract Task Order Number 0031

Subject:

Final Contamination Assessment Plan for Groundwater Monitoring and Free Product

Evaluation at the Former Bulk Tank Facilities Naval Station Mayport, Jacksonville, Florida

Dear Ms. Washington:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit the final Contamination Assessment Plan (CAP) for Groundwater Monitoring and Free Product Evaluation at the Former Bulk Tank Facilities at Naval Station (NAVSTA) Mayport, Jacksonville, Florida. This CAP was prepared for the United States Navy, Naval Facilities Engineering Command, Southeast (NAVFAC SE) under the Comprehensive Long-term Environmental Action Navy (CLEAN) IV Contract Number N62467-04-D-0055 for Contract Task Order (CTO) 0031.

If you have any questions with regard to this submittal, please contact me via e-mail at Mark.Peterson@tetratech.com or by phone at (904) 730-4669, Extension 213.

Sincerely,

Mark A. Peterson, P.G. Task Order Manager

MAP/lc

c: John Winters, FDEP (2 copies, 1 CD)

Diane Fears, NAVSTA Mayport (1 copy, 1 CD)

Wayne Wragg, FISC (1 copy, 1 CD)
Debbie Humbert, TtNUS (unbound, CD)

Administrative Record

CTO 0118 Project File

CONTAMINATION ASSESSMENT PLAN
FOR
GROUNDWATER MONITORING AND
FREE PRODUCT EVALUATION
AT THE
FORMER BULK TANK FACILITY

NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA

COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Naval Facilities Engineering Command
Southeast
NAS Jacksonville
Jacksonville, Florida 32212-0030

Submitted by:
Tetra Tech NUS, Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh, Pennsylvania 15220

CONTRACT NUMBER N62467-04-D-0055 CONTRACT TASK ORDER 0031

JULY 2010

PREPARED UNDER THE SUPERVISION OF:

APPROVED FOR SUBMITTAL BY:

MARK PETERSON, P.G. TASK ORDER MANAGER TETRA TECH NUS, INC.

JACKSONVILLE, FLORIDA

DEBRA M. HUMBERT PROGRAM MANAGER TETRA TECH NUS, INC.

PITTSBURGH, PENNSYLVANIA

TABLE OF CONTENTS

SEC1	<u>FION</u>	<u>PAGE</u>
ACRO	ONYMS	v
1.0	INTRODUCTION	1-1
2.0	SITE DESCRIPTION	2-1
3.0	SITE HISTORY 3.1 TANKS 99, 100, AND 101 (SWMU 51) 3.2 TANKS 201, 202, 203, AND 204 3.3 NIRP SITE 9 FUEL SPILL AREA (SWMU 11) 3.4 NIRP SITE 16 TRANSFORMER STORAGE YARD (SWMU 16) 3.5 NIRP SITE 8 WASTE OIL PIT AREA (SWMU 6) 3.6 OILY WASTE TREATMENT PLANT (SWMU 9) 3.7 OWTP SLUDGE DRYING BEDS (SWMU 7) 3.8 FORMER CHEMISTRY LAB ACCUMULATION AREA (SWMU 48) 3.9 CURRENT SITE SOIL AND GROUNDWATER CONDITIONS AT THE FBTF	3-13-23-43-53-73-83-93-10
4.0	OBJECTIVE AND SCOPE OF PROPOSED ASSESSMENT. 4.1 MOBILIZATION. 4.2 FREE PRODUCT INVESTIGATION. 4.2.1 Free Product Survey	4-14-14-24-24-44-54-64-74-74-74-94-9
5.0	LABORATORY ANALYSIS	5-1
6.0	REPORTING	6-1
7.0	PROPOSED SCHEDULE	7-1
8.0	REFERENCES	8-1
<u>APPE</u>	ENDICES A AST CLOSURE REPORTS B GROUNDWATER SAMPLING FIELD DATA SHEETS C LABORATORY ANALYTICAL REPORT	

D

FIELD FORMS

TABLES

NUMBER		PAGE	
4-1 4-2	Laboratory Sample Summary Summary of Fixed-Base Laboratory Analytical Methods	4-4 4-5	
	FIGURES		
NUMBI	<u>ER</u>	<u>PAGE</u>	
2-1	Site Layout	2-2	
2-2	Site Location and Adjacent Environmental Restoration Sites	2-3	
3-1	FBTF Monitoring viell Locations	3-11	
3-2	FBTF Temporary Monitoring Well Locations	3-12	

ACRONYMS

ABB-ES ABB Environmental Services, Inc.

Aerostar Environmental Services, Inc.

AST Aboveground Storage Tank

bls Below Land Surface

Bhate Environmental Associates, Inc.

BTEX Benzene, Toluene, Ethylbenzene, and Xylenes

°C Degree Celsius

CAP Contamination Assessment Plan
CAR Contamination Assessment Report

CLEAN Comprehensive Long-term Environmental Action Navy

CTO Contract Task Order

DDT Dichlorodiphenyltrichloroethane

DPT Direct Push Technology

E. C. Jordan E. C. Jordan and Company Engineers and Scientists

ENCO Environmental Conservation Laboratories, Inc.

ESA Environmental Science Associates, Inc.

ESE Environmental Science and Engineering, Inc.

ESI Expanded Site Investigation
FAC Florida Administrative Code
FBTF Former Bulk Tank Facilities

FDEP Florida Department of Environmental Protection

FISC Fleet and Industrial Supply Center FL-PRO Florida Petroleum Range Organics

FOL Field Operations Leader
GAG Gasoline Analytical Group

GCTL Groundwater Cleanup Target Level

H₂SO₄ Sulfuric Acid

HCI Hydrochloric Acid

IDW Investigation Derived Waste KAG Kerosene Analytical Group

L Liter

μg/kg Microgram per kilogram
MDL Method Detection Limit
MILCON Military Construction

mL Milliliter

ACRONYMS (Continued)

MTBE Methyl Tertiary Butyl Ether

NAVFAC SE Naval Facilities Engineering Command Southeast

NAVSTA Naval Station

Navy United States Navy
NFA No Further Action

NIRP Navy Installation Restoration Program

NTU Nephelometric Turbidity Unit

ORS Oil Recovery System

OWTP Oily Waste Treatment Plant

PAH Polynuclear Aromatic Hydrocarbon

PCB Polychlorinated Biphenyl

QC Quality Control

RBCA Risk-Based Corrective Action

RCRA Resource Conservation and Recovery Act

RFA RCRA Facility Assessment

RFA SV RCRA Facility Assessment Sampling Visit

RFI RCRA Facility Investigation
RMO Risk Management Option
SCTL Soil Cleanup Target Level

SWMU Solid Waste Management Unit
SOP Standard Operating Procedure
SVOC Semivolatile Organic Compound

Team NAVSTAL Mayport Tier I Environmental Partnering Team

TOM Task Order Manager

TRPH Total Recoverable Petroleum Hydrocarbons

TtNUS Tetra Tech NUS, Inc.

USEPA United States Environmental Protection Agency

VOC Volatile Organic Compound

1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS) has prepared this Contamination Assessment Plan (CAP) for the Former Bulk Tank Facilities (FBTF) 99, 100, 101, 102, 201, 202, 203, and 204 at Naval Station (NAVSTA) Mayport, Jacksonville, Florida. This CAP was prepared for the United States Navy, Naval Facilities Engineering Command Southeast (NAVFAC SE) under Contract Task Order (CTO) 0031, for the Comprehensive Long-term Environmental Action Navy (CLEAN) IV Contract Number N62467-04-D-0055.

The CAP provides the rationale and methodology for performing field activities to characterize groundwater conditions at the referenced sites. The objective of the proposed field investigations is to determine the extent of groundwater impacts by previous operations at the sites. The data collected during the FBTF investigations will be used to prepare corrective action documents, if required, in accordance with Chapter 62-780, Florida Administrative Code (F.A.C.). The investigation will characterize site conditions from which to base future courses of action.

Multiple environmental investigations have been conducted at and near the FBTF since 1989. The CAP presents a review of the historical environmental investigation at the FBTF and surrounding environmental restoration sites located in the immediate area of the FBTF. The CAP was written to gather all pertinent environmental investigation results, report the results of data collected to determine current site conditions, and to establish a path forward for future investigations and corrective measure for the sites. The purpose and scope of the CAP was discussed and generally agreed on by the NAVSTA Mayport Tier I Environmental Partnering Team (Team) during the May 2007, May 2008, and May 2009 Team meetings (Team, 2007, 2008, and 2009).

All areas of previously identified soil contamination are now located beneath the secondary containment of the new aboveground storage tanks (ASTs) that were installed after the removal of the former AST systems. The majority of contaminated soils are believed to have been removed during the construction of the new ASTs; however, no documentation of the soil removal and disposal could be located during the preparation of this CAP. Additional soil sampling at these locations was not possible due to presence of the secondary containment for the new AST systems. Groundwater samples were collected from the existing monitoring wells located at the FBTF to determine the current condition of the groundwater at the site. The groundwater samples were submitted for benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tertiary butyl ether (MTBE); polynuclear aromatic hydrocarbons (PAHs); and total recoverable petroleum hydrocarbons (TRPH) analysis. The results for all of the groundwater samples were less than laboratory detection limits. Three temporary monitoring wells were installed in areas where free product on the groundwater was previously identified. No free product has been observed in the temporary monitoring wells.

The anticipated path forward for the FBTF sites consists of one year of quarterly groundwater monitoring. Based on the one year of groundwater monitoring, the site will be evaluated against the Contaminated Site Risk-Based Corrective Action (RBCA) criteria established in Chapter 62-780, F.A.C., to determine if the sites qualify for No Further Action (NFA) under Risk Management Option (RMO) – Level II.

2.0 SITE DESCRIPTION

NAVSTA Mayport is located within the corporate limits of the City of Jacksonville, Duval County, Florida, and is approximately 12 miles to the east northeast of downtown Jacksonville and adjacent to the town of Mayport. The Station complex is located on the northern end of a peninsula bounded by the Atlantic Ocean to the east and the St. Johns River to the north and west. NAVSTA Mayport occupies the entire northern part of the peninsula except for the town of Mayport, which is located to the west between the Station and the St. Johns River.

The FBTF are located along the northern portion of NAVSTA Mayport situated between the airfield and the southern shore of the St. Johns River. The FBTF were located on approximately 7 acres in the vicinity of the present NAVSTA Mayport Fuel Farm. The FBTF included three 210,000 gallon ASTs (Tanks 99, 100, and 101) used to store oily wastewater, one 590,000 gallon AST (Tank 201) used to store JP-5, one 598,000 gallon AST (Tank 202) used to store JP-5, and two 1,500,000 gallon ASTs (Tanks 203 and 204) used to store diesel fuel. The tanks were demolished under a 1998 Military Construction (MILCON) project (P-468) from April 2000 to August 2001. New AST systems were installed with concrete secondary containment in the location of former Tanks 201, 202, 203, and 204. Figure 2-1 shows the location of the site and the position of the tanks as they appeared in 1989 before demolition.

One Navy Installation Restoration Program (NIRP) site (Site 9) and two Resource Conservation and Recovery Act (RCRA) Solid Waste Management Units (SWMUs) (SWMUs 11 and 51) have been identified to be located on portions of the FBTF sites. One NIRP site (Site 16) and five RCRA SWMUs (SWMUs 6, 7, 9, 16, and 48) are located adjacent to the FBTF sites. Figure 2-2 shows the location of the FBTF and the surrounding environmental restoration sites.

St, Johns River

100

300 Feet

200

Tank # 101

FBTF Site Boundary

Base Map - 1989 Mayport Aerial Photo

Legend

Perimeter Road

Tank # 202

Tank

Tank

201

Tank # 203

100

JLG

50



AS NOTED

3.0 SITE HISTORY

3.1 TANKS 99, 100, AND 101 (SWMU 51)

Tanks 99, 100, and 101 were installed at NAVSTA Mayport in 1954 and consisted of 210,000 gallon steel ASTs. Tanks 99 and 100 were used to receive oily wastewater from the Oily Waste Treatment Plant (OWTP). Tank 101 was used to hold the oily phase of the oily waste water that was pumped from Tanks 99 and 100. Tanks 99, 100, and 101 were identified as SWMU 51 in the 1989 RCRA Facility Assessment (RFA) and were included in the sites that were recommended for further investigation (A. T. Kearney, Inc., 1989).

Tanks 99, 100, and 101 were demolished under a 1998 MILCON project (P-468) in 1999 to 2002. In May 2000, Environmental Science Associates, Inc. (ESA) performed a limited closure assessment following the removal of the tanks. As part of the assessment activities, groundwater samples were collected from three existing monitoring wells (MW-15S, MW-03S, and MW-13S) and three temporary monitoring wells (TMW-1, TMW-2, and TMW-3) installed during the assessment. Three soil samples (CS-1, CS-2, and CS-3) were collected from soil borings installed at the site during the assessment. Soil and groundwater samples were submitted to a fixed-base laboratory for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), TRPH, and metals analysis (ESA, 2000a).

The groundwater sample collected from existing monitoring well MW-15S exceeded Florida Department of Environmental Management (FDEP) Groundwater Cleanup Target Levels (GCTLs) for naphthalene, 1-methylnaphthalene, 2-methlynaphthaene, and TRPH. The groundwater sample collected from temporary monitoring well TMW-2 exceeded FDEP GCTLs for naphthalene, 1-methylnaphthalene, and 2-methlynaphthaene. The groundwater sample collected from temporary well TMW-1 exceeded FDEP GCTLs for lead. None of the soil samples had exceedances of FDEP Soil Cleanup Target Levels (SCTLs) (ESA, 2000a).

Tanks 99, 100, and 101 were identified as SWMU 51 in the 1989 RFA Report (A. T. Kearney, Inc., 1989) and were identified as requiring additional investigation. SWMU 51 was classified as a Group II SWMU. When field investigations were conducted at other Group II SWMUs between 1993 and 1994, no field investigations were conducted at SWMU 51. Currently, the area at and around SWMU 51 is used for parking. The temporary and permanent monitoring wells sampled during the limited tank closure assessment are no longer present at SWMU 51. It is believed the wells were destroyed when the parking area was put into place. No environmental samples have been collected at SWMU 51 since the limited tank closure assessment in 2000. A RCRA Facility Investigation (RFI) is currently being conducted for SWMU 51.

3.2 TANKS 201, 202, 203, AND 204

Tanks 201 and 202 were installed at NAVSTA Mayport in 1960 and consisted of one 590,000 gallon AST (Tank 201) used to store JP-5 and one 598,000 gallon AST (Tank 202) used to store JP-5. Tanks 203 and 204 were installed at NAVSTA Mayport in 1960 and consisted of 1,500,000 gallon ASTs used to store diesel fuel.

In October 1996, petroleum free product was discovered in monitoring well MPT-16-MW02S during the RFI for SWMU 16. Monitoring well MPT-16-MW02S was located approximately 90 feet east of Tank 202, and the FBTF were believed to be the source of the free product. In May 1997, Bhate Environmental Associates, Inc. (Bhate) conducted a contamination assessment within the fenced area of Tanks 201, 202, 203, and 204. The area around monitoring well MPT-16-MW02S was also included in the contamination assessment.

The contamination assessment consisted of a soil gas survey, soil sample collection, and groundwater sample collection. The soil gas survey used 75 samplers deployed across the Fuel Farm area upgradient from monitoring well MPT-16-MW02S. The soil gas samplers detected organic constituents at various locations across the site, and suggested that Tank 202 was the likely source of the petroleum release. Soil and groundwater sample locations were based, in part, on the results of the soil gas survey. Thirty-two soil borings were installed utilizing direct push technology (DPT), four shallow [14 to 19 feet below land surface (bls)] soil borings were installed utilizing a hollow-stem auger drill rig, and one deep soil boring (25 feet bls) was installed utilizing a hollow-stem auger drill rig. Two soil samples were collected from each soil boring with the deep of the sample being based on field observations and screenings with an organic vapor analyzer.

The soil samples were submitted to a fixed-base laboratory for TRPH analysis. Four of the soil samples had concentrations that were greater than the current FDEP SCTL for leachability to groundwater. These samples were located in the vicinity of Tank 202; all other sample concentrations were either less than the FDEP SCTL for leachability to groundwater or less than the analytical Method Detection Limit (MDL). During the contamination assessment, groundwater samples were collected from nine newly installed monitoring wells (FF-MW-1 through FF-MW-9) and four existing monitoring wells. 1-Methylnaphthalene and 2-methylnaphthalene were detected in one monitoring well (FF-MW-5) at concentrations greater than FDEP GCTLs. BTEX and PAH constituents were either less than FDEP GCTLs or less than the analytical MDL. Monitoring well FF-MW-5 was located adjacent to Tank 202. Monitoring well MPT-16-MW02S contained 1/32 inch of free product. The soil gas survey identified two areas (to the immediate north and south of Tank 202) of former spills or petroleum contamination. No soil or groundwater exceedances were observed in samples collected under this assessment. Bhate submitted

a Contamination Assessment Report (CAR) in November 1997 that recommended site wide groundwater monitoring (Bhate, 1997).

In June 1998, Bhate conducted additional soil and groundwater investigations in the vicinity of Tank 202 based on the results from the CAR. The investigation consisted of the collection of soil samples at three locations adjacent to Tank 202, the installation of two additional monitoring wells (FF-MW-10 and FF-MW-11), and the collection of groundwater samples. The soil samples were submitted to a fixed-base laboratory for BTEX, PAH, and TRPH analysis. TRPH was detected at concentrations greater than FDEP SCTLs at two soil sample locations. All other constituents were either not detected or were detected at concentrations greater than FDEP SCTLs. Groundwater samples were collected from the two newly installed monitoring wells and submitted to a fixed-base laboratory for BTEX, PAH, TRPH, and total lead analysis. Naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, and TRPH were detected at concentrations greater than the current FDEP GCTLS in monitoring well FF-MW-10. No constituents were detected at concentrations greater than the current FDEP GCTLS in monitoring well FF-MW-11. The results of the additional investigation were submitted in a CAR Addendum dated October 1998 (Bhate, 1998).

In July 1999, Bhate conducted groundwater monitoring based on the results from the additional soil and groundwater investigations conducted in June 1998. The investigation consisted of the collection of groundwater samples from seven of the existing monitoring wells for TRPH and PAH analysis. 1-Methylnaphthalene and 2-methylnaphthalene were detected at concentrations greater than the current FDEP GCTLS in monitoring well MPT-16-MW02S (Bhate, 1999).

The four ASTs were demolished under a 1998 MILCON project (P-468) conducted from 1999 through 2002. The tanks were replaced with new ASTs that were built with concrete secondary containment.

A Limited Tank Closure Report for Tank 201 was prepared by Aerostar Environmental Services, Inc. (Aerostar) in January 2001. The closure assessment consisted of the collection of 5 soil samples from the base of the tank, 8 soil samples from the perimeter of the tank, and 13 groundwater samples collected at each of the soil sample locations. The assessment identified one soil sample location where TRPH was identified at a concentration greater than the FDEP SCTL. Groundwater samples at two locations around the perimeter of the tank showed 1-methylnaphthalene and 2-methylnaphthalene at concentrations greater than FDEP GCTLs. Benzo(a)anthracene was detected at concentrations greater than FDEP GCTLs at two ground water sample locations around the perimeter of the tank, and acenaphthalene and chrysene were detected at concentrations greater than FDEP GCTLs at one groundwater sample location (Aerostar, 2001a). A copy of the Closure Assessment Report is included in Appendix A.

A Limited Tank Closure Report for Tank 202 was prepared by Aerostar in March 2001. The closure assessment consisted of the collection of 5 soil samples from the base of the tank, 8 soil samples from the perimeter of the tank, and 13 groundwater samples collected at each of the soil sample locations. The assessment identified nine soil sample locations where TRPH was identified at concentrations greater than FDEP SCTLs. Naphthalene was detected at concentrations greater than FDEP GCTLs at 3 groundwater sample locations, 1-methylnaphthalene was detected at concentrations greater than FDEP GCTLs at 11 groundwater sample locations, and 2-methylnaphthalene was detected at concentrations greater than FDEP GCTLs at 8 groundwater sample locations (Aerostar, 2001b). A copy of the Closure Assessment Report is included in Appendix A.

A Limited Closure Summary Report for Tank 203 was prepared by ESA in August 2000. The closure assessment consisted of the collection of 5 soil samples from the base of the tank, 8 soil samples from the perimeter of the tank, and 13 groundwater samples collected at each of the soil sample locations. The assessment identified one soil sample location where benzo(a)anthracene and one soil sample location where benzo(a)pyrene were detected at concentrations greater than FDEP SCTLs. No constituents were detected at concentrations greater than FDEP GCTLs in the groundwater (ESA, 2000b). A copy of the Closure Assessment Report is included in Appendix A.

A Limited Tank Closure Report for Tank 204 was prepared by Aerostar in October 2001. The closure assessment consisted of the collection of 5 soil samples from the base of the tank, 8 soil samples from the perimeter of the tank, and 13 groundwater samples collected at each of the soil sample locations. The assessment identified one soil sample location where TRPH was identified at a concentration greater than the FDEP SCTL. Benzo(a)anthracene was detected in the groundwater at concentrations greater than FDEP GCTLs at three locations, and chloromethane was detected in the groundwater at a concentration greater than FDEP GCTL at one location (Aerostar, 2001c). A copy of the Closure Assessment Report is included in Appendix A.

3.3 NIRP SITE 9 FUEL SPILL AREA (SWMU 11)

NIRP Site 9 was located in the Fuel Farm area to the north and west of Tank 201 and consisted of soil contamination identified from a stained soil discovered in a soil boring installed for a construction plan. The source of the contamination is unknown, but is suspected to be from fuel that was spilled or leaked from the Fuel Farm and was believed to be JP-4, JP-5, or diesel fuel-marine. Site 9 was identified in the Initial Assessment Study conducted in 1986 by Environmental Science and Engineering, Inc. (ESE) for the Navy Assessment and Control of Installation Pollutants Program (ESE, 1986). An Expanded Site Investigation (ESI) was conducted at Site 9 in 1988 by E. C. Jordan and Company Engineers and Scientists (E. C. Jordan). Three subsurface soil samples were collected and submitted to a laboratory for analysis of VOCs, SVOCs, and total metals. Methylene chloride was detected in one soil sample at a

concentration of 186 micrograms per kilogram (µg/kg). This concentration is less than the current FDEP SCTL for residential direct exposure, but does exceed the SCTL for leachability to groundwater. No other constituents were detected in the soil samples. During the ESI at Site 9, three monitoring wells were installed at the site, and groundwater samples were collected and analyzed for VOCs, SVOCs, pesticides, and total metals. Naphthalene and aldrin were detected at concentrations that exceeded the FDEP GCTL, and all other constituents were less than GCTLs (E. C. Jordan, 1988).

Site 9 was identified as SWMU 11 in the 1989 RFA and was included in the sites that were recommended for an RFI (A. T. Kearney, Inc., 1989). SWMU 11 was included in the Group II SWMU sites, and an RFI was conducted for the Group II SWMUs in 1993 and 1994. During the RFI field activities, soil and groundwater screening samples and groundwater samples were collected at the site. Two soil screening borings (MPT-8-T19 and MPT-8-T21) were install at the site using DPT, and soil samples were collected at depths of 8 to 10 feet bls and 12 to 14 feet bls in boring MPT-8-T19, and 12 to 14 feet bls in boring MPT-8-T21. The soil screening samples were submitted for TRPH analysis, and TRPH was detected in all three soil samples at concentrations that ranged from 1,163 to 18,459 milligrams per kilogram. All three of the soil screening samples exceeded the current FDEP SCTL for leachability to groundwater. Groundwater samples were collected from each of the borings and submitted for TRPH analysis. TRPH was detected in each of the groundwater screening samples at concentrations of 2 and 4.2 micrograms per liter. Based on the results of the soil and groundwater screening, one monitoring well (MPT-8-MW12S) was installed. Groundwater samples were collected from the monitoring well and analyzed for VOCs, SVOCs, and metals. The analytical results of the groundwater samples for the VOCs and SVOCs constituents did not exceed the current FDEP GCTLs. Additional sampling is being conducted at SWMU 11, and an RFI Addendum will be prepared for the site.

3.4 NIRP SITE 16 TRANSFORMER STORAGE YARD (SWMU 16)

NIRP Site 8 was located east of Tank 204 on an abandoned runway. The site has been used since 1981 to store out of service transformers. It is not known if transformers containing polychlorinated biphenyls (PCBs) have been stored at the site. Minor spills and leaks have been reported to have occurred at the site. During an ESI conducted at the site in 1988, two surface soil samples were collected and analyzed for VOCs, SVOCs, PCBs, pesticides, and total metals. Dichlorodiphenyltrichloroethane (DDT) and dichlorodiphenyldichloroethylene were detected at concentrations greater than the current FDEP SCTLs for residential exposure and leachability to groundwater in one of the samples (MPT-16-SS1), and DDT and dichlorodiphenyldichloroethane were detected at concentrations greater than the current FDEP SCTLs for residential exposure and leachability to groundwater in one of the samples (MPT-16-SS2). All other constituents were either not detected or detected at concentrations less than SCTLs. No groundwater samples were collected at Site 16 during the ESI.

Site 16 was identified as SWMU 16 in the 1989 RFA and was included in the sites that were recommended for an RFI. SWMU 16 was included in the Group II SWMU sites, and an RFI was conducted for the Group II SWMUs in 1993 and 1994. During the RFI field activities surface soil, subsurface soil, and groundwater were collected at the site. ABB Environmental Services, Inc. (ABB-ES) conducted RFI field activities during two events in 1993 and 1994 at SWMU 16. In 1993, three groundwater monitoring wells were installed, and 37 surface soil samples, 6 subsurface soil samples, and 3 groundwater samples were collected and analyzed. In 1994, an additional groundwater monitoring well was installed, and groundwater samples were collected from the existing and newly installed monitoring wells for analysis (ABB-ES, 1996).

Results of the surface soil assessment did not indicate the presence of PCBs when soils were tested with field test kits; however, the PCB Aroclor-1260 was detected in all the confirmation surface soil samples at concentrations below 200 μ g/kg. The PCB Aroclor-1248 was detected in one surface soil sample at a concentration of 69 μ g/kg. The concentration of PCBs detected in surface soil during the RFI investigation was less than the FDEP SCTL (ABB-ES, 1996).

Results of the subsurface soil assessment performed during monitoring well installation indicated the presence of VOCs, SVOCs, pesticides, and PCBs. None of the compounds were detected at concentrations greater than their respective benchmark standards (ABB-ES, 1996). Petroleum related compounds in the subsurface soil were detected just above the water table. The petroleum related compounds were believed to have migrated laterally onto the site from the adjacent Fuel Farm and were not related to a release from SWMU 16. The detected pesticide, chlordane, was attributed to historical pesticide application. The PCB Aroclor-1260 was detected at 17 µg/kg in the subsurface soil sample collected from the 3 to 4 foot interval from the soil boring for monitoring well MPT-16-MW03S. Two inorganic analytes, beryllium and arsenic, were detected at concentrations exceeding benchmark standards; however, the two constituents were detected in an area outside the transformer storage area, and the analytes are suspected to have been from dredge material.

No chemical constituents were detected in exceedance of both background screening concentrations and FDEP GCTLs (ABB-ES, 1996).

In 1995, the surface soil and pavement (approximately 18 inches bls) at SWMU 16 were removed to prepare the area prior to paving for use as a parking lot. The excavated materials were temporarily stockpiled approximately 250 feet southwest of SWMU 16. On July 19, 1995, Navy personnel collected four composite samples of the materials excavated from SWMU 16 and analyzed the samples with a field immunoassay test kit. The composite samples results suggested that PCB concentrations were less than the human health-based residential and industrial FDEP SCTLs (ABB-ES, 1996).

Based on the results of the field investigation and excavation work conducted at SWMU 16, it was recommended in the RFI that no further investigation was necessary for SWMU 16.

On May 15, 2002, TtNUS mobilized to SWMU 16 to collect additional (confirmation) soil samples. The soil samples were collected to confirm the results of the RFI for SWMU 16. Three soil samples were collected at the approximate locations where PCBs were detected in excess of the United States Environmental Protection Agency (USEPA) Region III Risk-Based Concentrations during the RFI. The three soil borings were advanced with a stainless steel hand auger and were identified as MPT-16-SSE7, MPT-16-SSF2, and MPT-16-SSG7. The three soil samples were analyzed for Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260. The analytical results indicated that PCBs were not present in the 1-foot interval soil samples from soil borings MPT-16-SSE7, MPT-16-SSF2, and MPT-16-SSG7.

Based on the results of the soil sampling and analysis activities conducted in May 2002, PCBs are not present in surface soil at SWMU 16. As a result, TtNUS recommended the preparation of an NFA Statement of Basis for SWMU 16.

3.5 NIRP SITE 8 WASTE OIL PIT AREA (SWMU 6)

NIRP Site 8 is located southwest of the Fuel Farm area approximately 300 feet southwest of the former location of Tank 99. Site 8 consisted of an inactive waste oil pit located on the western portion of the OWTP. The site consisted of a 0.2 acre triangular shaped pit that was excavated to a depth of approximately 6 feet bls. The pit was used to from 1973 to 1978 to store waste oily bilge water that was pumped to it from ships. The pit also received waste oils and substances mixed with waste oil. The pit was not lined, and bilge water and oily waste were allowed to seep into the underlying soils. It was estimated that 250,000 gallons of bilge water and several thousand gallons of waste oil were disposed in the waste oil pit. The pit was filled and cover in 1979, and a sludge dying bed was constructed on top of the pit (A. T. Kearney, 1989).

An ESI was conducted at the site in 1988 (E. C. Jordan, 1988). During the ESI, three monitoring wells were installed at the site and groundwater samples were collected and analyzed for VOCs, SVOCs, pesticides, PCBs, and total metals. Benzene, naphthalene, bis(2-ethylhexyl)phthalate, and lead were detected at concentrations that exceeded FDEP GCTLs. All other constituents were either not detected or detected at concentrations less than GCTLs. Monitoring well MPT-8-2, which is the monitoring well located closest to the FBTF, was observed to contained free phase petroleum product.

Site 8 was identified as SWMU 6 in the 1989 RFA and was included in the sites that were recommended for an RFI. SWMU 6 was included in the Group II SWMU sites, and an RFI was conducted for the

Group II SWMUs in 1993 and 1994. During the RFI field activities, sludge, subsurface soil, and groundwater samples were collected at SWMU 6. Five sludge samples and two subsurface soil samples were collected at SWMU 6. The analytical results of the sludge and soil samples indicated that soils and at SWMU 6 had been impacted by VOC and SVOC constituents. Groundwater samples were collected during the RFI from four monitoring wells located on or adjacent to SWMU 6 (MPT-8-MW01S, MPT-8-MW02S, MPT-8-MW03S, and MPT-8-MW06S). Free product was present in monitoring wells MPT-8-MW02S and MPT-8-MW03S during the RFI. These wells are located down-gradient from SWMU 6 and to the southwest of Tanks 99, 100, and 101.

3.6 OILY WASTE TREATMENT PLANT (SWMU 9)

The OWTP was identified as SWMU 9 in the 1989 RFA and was included in the sites that were recommended for an RFI (A. T. Kearney, 1989). SWMU 9 is located south of the Fuel Farm area approximately 150 feet south of the former location of Tanks 100 and 101. The OWTP was constructed around 1979 and used to treat bilge water from ships and other oily waste generated at NAVSTA Mayport. At the time of the RFA, SWMU 9 included a rapid mix/flocculation tank, a clarifier, a neutralization tank, and connected piping. The OWTP was updated in 1989 and currently consists of a dissolved air floatation unit and three holding tanks.

SWMU 9 was included in the Group II SWMU sites, and a RFI was conducted for the Group II SWMUs in 1993 and 1994. During the RFI field activities, groundwater samples were collected at SWMU 9. Two soil screening locations were located at SWMU 9 during the RFI. No petroleum constituents were detected at SWMU 9 during the soil screening. Groundwater samples were collected during the RFI from monitoring well MPT-8-MW09S. Three SVOC constituents were detected at concentrations greater than current FDEP GCTLs (2-methylphenol; 2,4-dimethylphenol; and 3- & 4-methylphenol). SWMU 9 is located upgradient of Tanks 99, 100, and 101. Additional sampling is being conducted at the SWMU 9, and an RFI Addendum will be prepared for the site.

3.7 OWTP SLUDGE DRYING BEDS (SWMU 7)

The OWTP sludge drying beds were identified as SWMU 7 in the 1989 RFA and were included in the sites that were recommended for an RFI. SWMU 7 consists of three sludge drying beds that were used to dewater sludge from the OWTP and is located approximately 150 feet north of the former location of Tank 99. Each drying bed is approximately 150 feet in length, 50 feet wide, and consisted of unlined beds with earthen berms that were approximately 15 feet above land surface. The sludge placed in these beds was from the clarifier of the OWTP and from sludge that settled to the bottom of Tanks 99 and 100.

SWMU 7 was included in the Group II SWMU sites, and an RFI was conducted for the Group II SWMUs in 1993 and 1994. During the RFI field activities, sludge, subsurface soil, and groundwater samples were collected at SWMU 7. Thirteen sludge samples and two subsurface soil samples were collected at SWMU 7. The analytical results of the sludge and soil samples indicated that soils and at SWMU 7 had been impacted by VOC and SVOC constituents. Groundwater samples were collected during the RFI from 7 monitoring wells located adjacent to SWMU 7 and 11 monitoring wells located down gradient from SWMUs 6 and 7. The 11 down gradient monitoring wells were located around the perimeter of the former locations of Tanks 99, 100, and 101. Free product was present in monitoring wells MPT-8-MW02S, MPT-8-MW03S, and MPT-8-MW07S during the RFI. These wells are located down gradient from SWMU 6 and south and southwest of Tanks 99, 100, and 101.

3.8 FORMER CHEMISTRY LAB ACCUMULATION AREA (SWMU 48)

The former chemistry lab accumulation area was identified as SWMU 48 in the 1989 RFA and was included in the sites that were recommended for further investigation. SWMU 48 was located in a grass field behind (west and north) the chemistry lab at the OWTP and consisted of poorly maintained 55-gallon drums and smaller plastic containers that were reported to contained mercury and plating waste generated at the OWTP chemistry lab.

Between June and August 1998, soil and groundwater samples were collected at SWMU 48 by ABB-ES. The sampling was conducted as part of a RFA Sampling Visit (RFA SV) (confirmatory sampling) for the Group I and II SWMUs (ABB-ES, 1995). During the RFA SV, five surface soil samples, two subsurface soil samples, and four groundwater samples were collected at SWMU 48 and analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. One subsurface soil sample contained arsenic at a concentration greater than the current FDEP SCTL. All other constituents in the soil samples were either less than SCTLs or not detected in the sample. Benzene, 2-methylnaphthalene, naphthalene, and lead were detected at concentrations greater than current FDEP GCTLs in monitoring well MPT-8-MW07S. 2-Methylphenol; 2,4-dimethylphenol; 3- & 4-methylphenol; iron; manganese; and sodium were detected at concentrations greater than current FDEP GCTLs in monitoring well MPT-8-MW09S. Sodium was detected at concentrations greater than current FDEP GCTLs in monitoring well MPT-8-MW08S. All other constituents in the groundwater samples were either less than GCTLs or not detected in the sample. Free product was observed in monitoring well MPT-8-MW07S in 1994. Monitoring well MPT-8-MW07S was located hydraulically upgradient from SWMU 48, and the free product and VOC and SVOC constituents detected in the well during the RFA SV are not believed to be attributable to SWMU 48. An NFA letter was issued for the site by the USEPA in 1996.

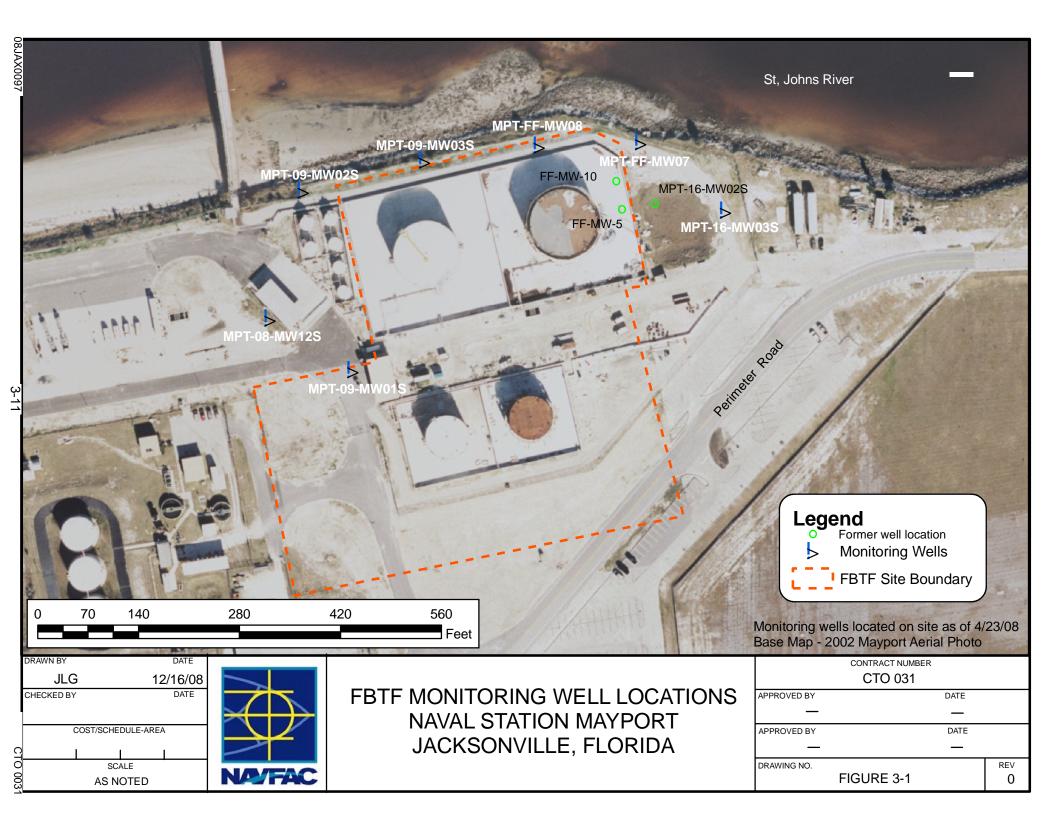
3.9 CURRENT SITE SOIL AND GROUNDWATER CONDITIONS AT THE FBTF

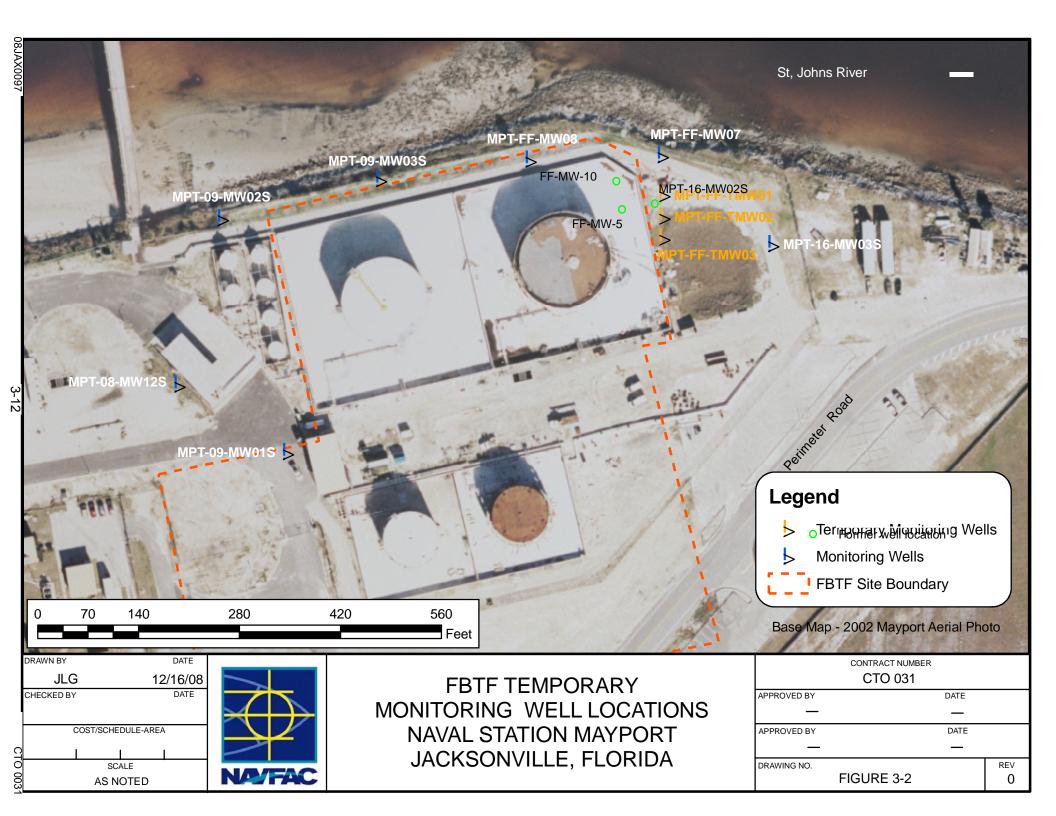
Soil contamination identified at the FBTF during the investigations associated with Tanks 201, 202, 203, and 204 is believed to have been removed during the construction of the new ASTs installed at the site. No documentation is available to support the excavation and disposal of the contaminated soil. The soil sample locations that contained constituents at concentrations greater than FDEP SCTLs have been covered by the secondary containment of the newly installed ASTs.

In May 2008, TtNUS conducted a survey of existing monitoring wells located at the FBTF. The majority of the monitoring wells installed during the investigations at SWMU 16 and the Bhate contamination assessment are no longer present at the site and were most likely removed or destroyed during the installation of the new ASTs. The monitoring wells that were located at the site at the time of the well survey are shown on Figure 3-1.

On April 23 and 24, 2008, TtNUS personnel collected groundwater samples from seven monitoring wells located in the vicinity of the FBTF. Groundwater samples were collected from monitoring wells MPT-08-MW12S-0408, MPT-09-MW01S-0408, MPT-FF-MW07-0408, MPT-16-MW03S-0408, MPT-FF-MW08-0408, MPT-09-MW02S-0408, and MPT-09-MW03S-0408. Groundwater sampling was conducted in general accordance with FDEP Standard Operating Procedures (SOPs) (DEP-SOP-001/01) After collection, samples were immediately placed on ice and delivered to adopted in 2004. Environmental Conservation Laboratories, Inc. (ENCO) in Jacksonville, Florida for analysis of BTEX and MTBE using USEPA Method 8260B, 16 method listed PAHs plus 1- and 2-methylnaphthalene using USEPA Method 8270, and TRPH using the Florida Petroleum Range Organics (FL-PRO) Method. Field data sheets are provided in Appendix B, and the groundwater analytical report is included as Appendix C. Groundwater analyzed from the monitoring wells had no petroleum impacts greater than the FDEP GCTLs for all constituents (BTEX, MTBE, PAHs, and TRPH). Free product was not observed in any of the monitoring wells during the groundwater sampling event.

On October 31, 2008, TtNUS personnel installed three temporary monitoring wells (MPT-FF-TMW01, MPT-FF-TMW02, and MPT-FF-TMW03) in the vicinity of the former location of monitoring well MPT-16-MW02S (see Figure 3-2). The temporary monitoring wells were installed to depths of 18 feet using DPT techniques. The wells were constructed of 2-inch inside diameter, Schedule 40, flush-joint polyvinyl chloride risers and flush-joint 0.010-inch factory-slotted well screens. The well screens were 10 feet in length and positioned to intersect the water table. Following well installation and development, measurements were taken from each monitoring well using an Oil Recovery System (ORS) free product probe that electronically sounds differently for free product and water. Free product was not present in any of the three newly installed monitoring wells.





On November 24, 2008, TtNUS personnel returned to the site to check the three temporary monitoring wells for free product. Measurements were taken from each temporary monitoring well using an ORS free product probe. Free product was not present in any of the temporary monitoring wells.

On March 2, 2010, TtNUS personnel installed a new monitoring well between MPT-FF-MW07 and MPT-16-MW03S, as discussed in the May 2009 Team meeting (Team, 2009). The new monitoring well was given the sample identification MPT-FF-MW-6R due to its close proximity to the former monitoring well MPT-FF-MW-6. The monitoring well was installed to a depth of 15 feet bls and will be included in future groundwater sampling events.

4.0 OBJECTIVE AND SCOPE OF PROPOSED ASSESSMENT

The objective of the proposed assessment described in this work plan is as follows:

- Monitoring for the presence of free product and determine the horizontal extent of groundwater impacts (if present).
- Collect data to complete a Global RBCA evaluation in accordance with Chapter 62-780, F.A.C.

The work in the following sections will be completed in accordance with the FDEP SOPs.

4.1 MOBILIZATION

Field mobilization activities will take place on the first day of each phase of work and will include travel and on-site preparatory activities. These activities will include receiving, storage, and testing of field equipment.

4.2 FREE PRODUCT INVESTIGATION

Free product was identified in historical site investigations at the site. Free product was observed in monitoring well MPT-16-MW02S during the contamination assessments conducted by Bhate in 1997 and 1999. Monitoring well MPT-16-MW02S was either removed or destroyed during removal and installation of the ASTs at the site. Three temporary monitoring wells have been installed in the vicinity of the former location of monitoring well MPT-16-MW02S and were evaluated for the presence of free product. No free product has been observed in the three temporary monitoring wells. One of the three temporary monitoring wells will be converted into a permanent monitoring well and will be continued to be monitored for the presence of free product. The other two temporary monitoring wells will be properly abandoned. This investigation will evaluate the condition of the groundwater and determine if free product is present at the site.

4.2.1 <u>Free Product Sur</u>vey

Free product measurements will be taken quarterly from each monitoring well using an ORS free product probe. If free product is present, it will be removed through low flow purging using a peristaltic pump and containerized for disposal.

4.3 GROUNDWATER INVESTIGATION

Groundwater samples will be collected from the newly installed permanent monitoring well and the following existing monitoring wells at the site: MPT-08-MW12S, MPT-09-MW01S, MPT-09-MW02S, MPT-09-MW03S, MPT-16-MW03S, MPT-FF-MW07, and MPT-FF-MW08. Groundwater samples will be collected quarterly for one year to gather data to determine if the site is eligible NFA or NFA with Controls under RMO Level I or RMO Level II per Chapter 62-780.680, F.A.C. Following the quarterly events, analytical results will be used to determine if additional monitoring wells are required.

Historically, no release has been identified in the northeastern portion of the fuel depot; therefore, at this time, there is no reason for new groundwater sample results to have changed since the last sampling conducted in 1997 (Bhate, 1997).

4.3.1 Groundwater Flow

Depth-to-water will be measured from the top-of-casing of the monitoring wells using an electronic water level indicator. The relative water table elevation at each location will be calculated by subtracting the depth-to-water measurement from the surveyed top-of-casing elevation, and a groundwater flow direction (potentiometric) map will be generated from the water table elevation data. Depths to groundwater will be recorded on a Water Level Log Sheet (see Appendix D).

A registered surveyor will survey the monitoring well installed during the site assessment. Horizontal positioning will be measured and plotted for each permanent monitoring well in accordance with the Florida State Plane Coordinate System and the North American Datum of 1983. The top-of-casing elevation of each permanent monitoring well will be surveyed in accordance to the North American Vertical Datum of 1988 and referenced to site features (i.e., building corners, etc.).

Aquifer testing will not be necessary to determine aquifer characteristics, since extensive aquifer data for NAVSTA Mayport has been obtained and documented by the United States Geological Survey. This data will be referenced and used if appropriate.

4.3.2 Groundwater Sampling

The wells will be purged using a peristaltic pump using low flow quiescent purging techniques per FDEP SOPs. The data will be recorded on a Low Flow Purge Data Sheet (see Appendix D). Depending on the groundwater parameters, up to five well volumes may be purged. If wells are purged dry with less than three well volumes removed, the water level in the well will be allowed to recover enough to collect five field readings (pH, temperature, turbidity, dissolved oxygen, and specific conductance) prior to collecting

a water sample. If the well does not purge dry using the low flow purging technique, groundwater characteristics will be taken after each well volume of water is purged or at 2- to 10-minute intervals, depending on the flow rate.

Stabilization will be defined according to the following scenarios:

- I. When purging a well that has a partially submerged well screen, a minimum of one well volume will be purged prior to collecting measurements of field parameters listed below. If the well screen is fully submerged, then a minimum of one volume of the pump, associated tubing, and flow cell will be purged prior to collecting field parameters listed below. Purging will be considered complete when three consecutive measurements of the field parameters are within the desired limits as shown below.
 - Temperature ± 0.2 degree Celsius (°C)
 - pH ± 0.2 Standard Unit
 - Specific Conductivity ± 5 percent of reading
 - Dissolved oxygen is not greater than 20 percent of saturation at the field measured temperature
 - Turbidity is not greater that 20 Nephelometric Turbidity Units (NTUs)
- II. When purging a well and Scenario I is impossible to achieve, three consecutive measurements of the following parameters are required:
 - Dissolved oxygen ± 0.2 milligram per liter or 10 percent, whichever is greater
 - Temperature ± 0.2 °C
 - pH ± 0.2 Standard Unit
 - Specific Conductivity ± 5 percent of reading
 - Turbidity ± 5 NTUs or 10 percent, whichever is greater

If stabilization is not achieved, five screen volumes must be removed prior to samples being collected in the appropriate sample containers. Samples to be analyzed for volatile constituents will be collected first and immediately sealed in 40-milliliter (mL) vials so that no headspace exists. Samples will be analyzed for compounds listed in Table 4-1.

The analysis provided in Table 4-1 is based on the Gasoline Analytical Group (GAG) and Kerosene Analytical Group (KAG) analytical groups listed by the FDEP in Table B of Chapter 62-770, F.A.C. The laboratory analyses selected for the GAG and KAG group are designed to identify impacts from a fuel oil

release. The data acquired during sampling at both sites will be recorded on a Groundwater Sample Log Sheet (see Appendix D).

Table 4-1 Laboratory Sample Summary

Contamination Assessment Plan for the FBTF Naval Station Mayport Jacksonville, Florida

Analyte Proposed Method ⁽¹⁾		Environmental Samples			Total Samples		
GROUNDWATER							
VOCs	SW-846 USEPA 8260B	8	1	1	10		
PAHs ⁽²⁾	SW-846 USEPA 8310	8	1	0	9		
TRPH	FL-PRO	8	1	0	9		

Notes:

4.4 SAMPLE HANDLING

Sample handling includes the selection of sample containers, preservatives, allowable holding times, and the analyses requested. Sample handling procedures will be in accordance with FDEP SOP 001/01 FS1000 and FS2200. Holding times vary from 7 to 14 days. A table of analysis, methods numbers, preservative, and holding time is provided as Table 4-2. Once obtained, the samples are to be placed on ice within 15 minutes of collection and cooled to 4 °C.

4.5 SAMPLE PACKAGING, SHIPPING, AND NOMENCLATURE

Samples will be packaged and shipped in accordance with FDEP SOPs. The Field Operations Leader (FOL) will be responsible for completing the following forms when samples are collected for shipping:

- Sample labels
- Chain-of-Custody labels
- Appropriate labels applied to shipping coolers
- Chain-of-Custody forms
- Federal Express Air Bills

⁽¹⁾ Method referenced reflects FDEP requirements.

⁽²⁾Includes 1-methylnaphthalene, 2-methylnaphthalene, and 16 method-listed PAHs included in Table A of Chapter 62-770, F.A.C.

Table 4-2 Summary of Fixed-Base Laboratory Analytical Methods

Contamination Assessment Plan for the FBTF Naval Station Mayport Jacksonville, Florida

GROUNDWATER								
Analysis	Analytical Method	Sample Volume ⁽¹⁾	Bottleware	Preservation ⁽²⁾	Holding Time ⁽³⁾			
VOCs Aromatic and halogenated	SW-846 8260B	3 x 40 mL	Glass vial Teflon lined septum cap	HCl to pH < 2 Cool to 4 °C Zero headspace	14 days to analysis			
SVOCs Both base and neutrals	SW-846 8270C	2 x 1 L	Amber glass Teflon lined cap	Cool to 4 °C	7 days to extraction Analysis within 40 days			
TRPH	FL-PRO	2 x 1 L	Amber glass Teflon lined cap	H ₂ SO ₄ to pH < 2 Cool to 4 °C	7 days to extraction Analysis within 40 days			

Notes:

- (1) Sample volume may vary based upon the laboratory.
- $^{(2)}$ HCI Hydrochloric acid; H_2SO_4 Sulfuric acid
- (3) Holding times are measured from the date and time of sample collection.
- L Liter

Each sample will be assigned a unique sample identification number. The unique label system established for this sampling event is as follows:

Sample identification nomenclature is designed to help differentiate the samples, allowing a quick reference to the Navy base, sample location, medium, location, and depth when applicable. All sample identification's shall have a prefix (MPT) to designate which Navy base the samples are collected, and soil and groundwater designations will be noted by a SS or MW following the base identification. Groundwater samples will be sampled from monitoring wells with next identification noting the well sampled.

Example: MPT FF- MW01

This groundwater sample is representative of a sample collected from well MW01.

4.6 SAMPLE CUSTODY

The chain-of-custody begins with the release of the empty sample bottles from the laboratory and must be documented and maintained from that point forward. To maintain custody of the sample bottles or samples, they must be in someone's physical possession, in a locked room or vehicle, or sealed with an intact custody seal. When the possession of the bottles or samples is transferred from one person to another, it will be documented in the field logbook and on the chain-of-custody. Custody of samples must be maintained and documented at all times. FDEP SOP 001/01 FS 1000 and TtNUS SOP SA-6.3 provide a description of the chain-of-custody procedures to be followed.

The FOL will be responsible for completion of the following forms when samples are collected for shipping:

- 1. Sample labels
- 2. Chain-of-custody labels
- 3. Appropriate labels applied to shipping coolers
- 4. Chain-of-custody forms
- 5. Federal Express air bills

All samples are to be shipped to ENCO located at 4801 Executive Park Court in Jacksonville, Florida, (904) 297-3007.

4.7 QUALITY CONTROL SAMPLES

In addition to periodic calibration of field equipment and appropriate documentation on a field calibration sheet (see Appendix D), Quality Control (QC) samples will be collected or generated during environmental sampling activities. QC samples will be collected in accordance with the requirements established during the Plan of Action negotiations.

<u>Trip Blanks</u> – Trip blank(s) are required if the samples will be analyzed for VOCs. Trip blanks are prepared by the laboratory providing the VOC vials and are prepared by filling the preserved vials with analyte-free water.

<u>Equipment/Field Blanks</u> – Equipment/Field blanks are required for sampling equipment used during the investigation. Equipment blank frequency is 5 percent of samples taken (excluding QC samples).

4.7.1 Record Keeping

In addition to chain-of-custody records associated with sample handling, packaging, and shipping, certain standard forms will be completed for sample description and documentation. These shall include sample log sheets (for soil samples), daily activities record (for subcontractors), and logbooks.

The FOL will maintain a bound/weatherproof field notebook. The FOL, or designee, will record pertinent information related to sampling or field activities. This information may include sampling time, weather conditions, unusual events (e.g., well tampering), field measurements, site visitors, descriptions of photographs, etc. At the completion of field activities, the FOL shall submit to the TtNUS Task Order Manager (TOM) all field records, data, field notebooks, logbooks, chain-of-custody receipts, sample log sheets, daily logs, etc.

4.7.2 <u>Investigation Derived Waste Management</u>

Purge water and decontamination water will be collected and containerized in Department of Transportation approved (Specification 17C) 55-gallon drums. Each drum will be sealed, labeled, and transported to a pre-designated staging area designated by NAVSTA Mayport personnel (behind Building 1613) located within NAVSTA Mayport pending groundwater analytical results. All decontamination materials generated during the site investigation will be containerized for proper disposal. It is the responsibility of TtNUS to set up a contract with a licensed contractor for disposal of the investigation derived waste (IDW) following completion of the field sampling. Appropriate IDW documentation will be maintained in the project field log book. In addition to documenting the IDW in the field log book, an IDW management sheet will be filled for each drum stored at Building 1613, and a copy of this sheet will be provided to Diane Fears, NAVSTA Mayport Environmental Department, upon completion of field activities. See Appendix D for a copy of the IDW management sheet.

4.7.3 Equipment Calibration

The field instruments such as the water quality multimeter and turbidity meter will be calibrated daily and/or according to FDEP SOPs FT1000: General Field Testing and Measurement.

Calibration will be documented on an Equipment Calibration Log. During calibration, an appropriate maintenance check will be performed on each piece of equipment. If damaged or defective parts are identified during the maintenance check and it is determined that the damage could have an impact on the instrument's performance, the instrument will be removed from service until defective parts are repaired or replaced. A copy of the field calibration sheet is included in Appendix D.

4.8 DECONTAMINATION

The equipment involved in field sampling activities will be decontaminated prior to and during sampling activities in accordance to FDEP SOP FC1000.

All sampling equipment will be cleaned and decontaminated prior to use and after each subsequent use. Non-disposable equipment used for collecting samples will be decontaminated prior to beginning field sampling and between sample locations. After cleaning, equipment will only be handled by personnel wearing clean gloves to prevent recontamination. The following is a description of the materials to be used in the decontamination process and the procedures to be used for the specific types of equipment.

Specifications for Cleaning Materials:

- 1. Soap will be a standard phosphate-free laboratory detergent (e.g., Liquinox[®]).
- 2. Solvent will be pesticide-grade isopropanol.
- 3. Tap water may be from any municipal water system.
- 4. Analyte-free deionized water should contain no detectable heavy metals or other inorganic constituents.

Procedures for Sampling Equipment:

- 1. Remove all soils to the extent possible.
- 2. Through a combination of scrubbing using soap and/or steam cleaning remove visible dirt/soils.
- 3. Rinse with tap water.
- 4. Rinse equipment with pesticide grade isopropanol. Plastic items should not be solvent rinsed.
- 5. Rinse thoroughly with deionized water.
- 6. To the extent possible allow components to air dry.
- 7. If the device is to be used immediately, screen with a photoionization detector/flame ionization detector to ensure all solvents (if they were used) and trace contaminants have been adequately removed.
- 8. Remove from the decontamination area and cover with clean plastic. If equipment is to be stored overnight, it will be wrapped in aluminum foil and covered with clean, unused plastic.

Procedures for Water Level Meter:

- 1. Wash with soap and tap water.
- 2. Rinse with tap water.
- 3. Rinse with deionized water.

4.9 FIELD DOCUMENTATION

Field documentation for this assessment will include field logbooks, field log forms, location and sample identification nomenclature, and sample labels.

In addition to chain-of-custody records associated with sample handling, packaging, and shipping, certain standard forms will be completed for sample description and documentation. Dedicated field logbooks will be used to record pertinent field activities. The TOM's name, FOL's name, project name and location, and project number will be recorded on the inside of the front cover of all logbooks. Entries will be recorded with waterproof, non-erasable ink. Each page of the logbook will be numbered and dated. All logbook entries must be legible and contain accurate and complete information about an individual's project activities. At the end of all entries for a particular day, or a particular event if appropriate, the investigator will draw a diagonal line across the page below the last entry and initial indicating the

conclusion of entries. All entries will be objective, factual, and free of personal feelings. Corrections will be made by drawing a single line through the error and entering the correct data. All corrections will be initialed and dated.

4.10 DEMOBILIZATION

Demobilization will occur at the conclusion of all other field activities related to this investigation. Activities to occur during this phase include the installation of well tags on the new monitoring wells, return of all rental field equipment, verification of proper IDW documentation and staging by the FOL, and securing of the site.

4.11 SITE MANAGEMENT AND BASE SUPPORT

TtNUS will perform this project with support from the Navy. This section of the CAP describes the project contacts, support personnel, project milestones, and time frames of all major events.

Throughout the duration of the investigation activities, work at NAVSTA Mayport will be coordinated through NAVFAC SE, FDEP, Fleet and Industrial Supply Center (FISC), and NAVSTA Mayport personnel. The primary contacts are as follows:

- NAVFAC SE
 Ms. Beverly Washington
 135 Ajax Street N.
 Building 135
 Jacksonville, FI 32212-0030
 (904) 542-5581
- FDEP
 Mr. John Winters
 2600 Blair Stone Road
 Tallahassee, FL 32399
 (850) 245-8999

- 3. FISC
 Mr. Wayne Wragg
 8808 Somers Road
 Jacksonville, FL 32226-2600
 (904) 696-6556, extension 200
- NAVSTA Mayport Environmental Department
 Ms. Diane Fears
 P.O. Box 280067
 Jacksonville, FL 32228-0067
 (904) 270-6730, extension 208

NAVSTA Mayport and FISC personnel will provide the following support functions:

- Provide existing engineering plans, drawings, diagrams, files, etc. to facilitate evaluation of the sites under investigation.
- Provide all historical data, background geological and hydrogeological information, and initial site investigation documents.

NAVSTA Mayport and FISC personnel will aid in arranging the following:

- Personnel identification badges, vehicle passes, and/or entry permits.
- A secure staging area (approximately 2,000 square feet) for storing equipment and supplies.
- A supply (e.g., fire hydrant, stand pipe, etc.) of large quantities of potable water for equipment cleaning, sampling, etc.
- As required, provide escorts for contract personnel working in secured areas.

The project will be staffed with personnel from the TtNUS' Jacksonville, Florida office. During field activities, TtNUS will provide an FOL who is familiar with the scope of work to be completed and requirements of working at NAVSTA Mayport. Additionally, TtNUS will supply a field crew to sample the groundwater monitoring wells.

Mr. Mark Peterson is the TOM for CLEAN IV CTO 0031 and will be the primary point of contact for the Station and the FOL. He is responsible for cost and schedule control as well as technical performance. Mr. Peterson will provide senior level review and oversight during field activities.

4.11.1 Contingency Plan

In the event of problems that may be encountered during site activities, the TtNUS TOM will be notified immediately, followed by the NAVFAC SE point of contact, and the NAVSTA Mayport point of contact. The TOM will determine a course of action so as to not interfere with the schedule or budget. Contingency plans will be approved through the NAVFAC SE point of contact before being enacted.

5.0 LABORATORY ANALYSIS

A fixed-base laboratory will be used to analyze groundwater samples for constituents identified in Table 4.1. Groundwater samples will be analyzed for constituents of concern including VOCs, 1-methylnaphthalene, 2-methylnaphthalene, TRPH, and the 16 method listed PAHs included in Table B of Chapter 62-770, F.A.C.

6.0 REPORTING

A report detailing the findings of this assessment will be submitted to FDEP on behalf of the Navy following completion of the field work. The report will use Chapter 62-777, F.A.C., contamination criteria to determine action levels of potential contaminants. The report will compare site conditions to the criteria in Chapter 62-780.680, F.A.C., and based on these results recommendations will be provided.

7.0 PROPOSED SCHEDULE

Field activities include monitoring well installation and development, groundwater sampling, surveying, and IDW management. The first sampling event has been conducted and laboratory results are pending. Additional events will be performed after Navy procurement is completed.

8.0 REFERENCES

ABB-ES (ABB Environmental Services, Inc.), 1995. Resource Conservation and Recovery Act (RCRA) Facility Assessment Sampling Visit Report Group I and II Solid Waste Management Units U.S. Naval Station Mayport, Florida.

ABB ES, 1996. Resource Conservation and Recovery Act Facility Investigation Group II Solid Waste Management Units U.S. Naval Station Mayport, Florida.

Aerostar (Aerostar Environmental Services, Inc.), 2001a. Limited Closure Assessment Report Aboveground Storage Tank No. 201, Mayport Naval Station, Florida.

Aerostar, 2001b. Limited Closure Assessment Report Aboveground Storage Tank No. 202, Mayport Naval Station, Florida.

Aerostar, 2001c. Limited Closure Assessment Report Aboveground Storage Tank No. 204, Mayport Naval Station, Florida.

A. T. Kearney, Inc., 1989. RCRA Facility Assessment of the Naval Station Mayport, Florida.

Bhate (Bhate Environmental Associates, Inc.), 1997. Contamination Assessment Report NSC Fuel Farm, Naval Station Mayport, Florida.

Bhate, 1998. Addendum to the Contamination Assessment Report NSC Fuel Farm, Naval Station Mayport, Florida.

Bhate, 1999. Addendum # 2 to the Contamination Assessment Report NSC Fuel Farm, Naval Station Mayport, Florida.

E. C. Jordan and Company Engineers and Scientists, 1988. Navy Installation Restoration Program (NIRP) Expanded Site Investigation, Naval Station Mayport, Florida.

ESA (Environmental Science Associates, Inc.), 2000a. Limited Closure Summary Report, Mayport Naval Station Fuel Depot Tanks # 99, 100, 101, Mayport Naval Station, Duval County, Florida.

ESA, 2000b. Limited Closure Summary Report, Mayport Naval Station Fuel Depot Tanks # 203, Mayport Naval Station, Duval County, Florida.

Environmental Science and Engineering, Inc., 1986. Initial Assessment Study Naval Station Mayport, Florida.

Team (NAVSTA Mayport Tier I Environmental Partnering Team), 2007. Partnering Team Meeting Minutes. May.

Team, 2008. Partnering Team Meeting Minutes. May.

Team, 2009. Partnering Team Meeting Minutes, May.

APPENDIX A

AST CLOSURE REPORTS

08JAX00097 CTO 0031

LIMITED CLOSURE SUMMARY REPORT

Mayport Naval Station Fuel Depot Tanks # 99, 100, 101 Mayport Naval Station, Duval County, Florida Facility ID # 8626008

Prepared for:

Environmental Recovery, Inc. 251 Levy Road Atlantic Beach, Florida 32233

Prepared by:

Environmental Science Associates, Inc. 35 Jefferson Avenue Ponte Vedra, Florida 32802 CompQAP #970173

June 2000



TABLE OF CONTENTS

PAGE
Limited Closure Summary Report Form
Summary of Field Activities
Figure 1. Site Location Map
Figure 2. Site Map Indicating Soil and Groundwater Sampling Locations
Table 1. Summary of Groundwater Analysis - Monitor Wells #MW-15S, MW-03S, and MW-13S 6
Table 2. Summary of Soil Analysis
Table 3. Summary of Groundwater Analysis - Temporary Monitor Wells
Photodocumentation
ATTACHMENT A - Laboratory Reports
ATTACHMENT B - Well Sampling Field Logs



Department of Environmental Protection

DEP Form 62.761.900(8)
Form Title: Limited Closure
Summary Report
Effective Date: 7/13/98

Twin Towers Office Building ♦ 2600 Blair Stone Road ♦ Tallahassee, Florida 32399-2400

Limited Closure Summary Report

This form is required for facilities that have sites with documented contamination requiring a site assessment in accordance with Chapter 62-770, F.A.C. This includes those facilities that are eligible for the Early Detection Incentive Program (EDI), the Florida Petroleum Liability and Restoration Insurance Program (FPLRIP), and the Petroleum Cleanup Participation Program (PCPP), pursuant to Sections 376.3071 and 376.3072, F.S. Documentation of procedures followed, and results obtained during closure shall be reported in this form, along with any attachments. This form shall be submitted to the County within 60 days of completion of the closure in accordance with Section A of the "Storage Tank System Closure Assessment Requirements."

County_Doval ility Telephone #: () ner/Operator phone #: () gs Closed_3 Age(s) of Tanks 4549 ck one or more)
ner/Operator phone #: () 19/00, 10/ - Fuel depolend as Closed 3 Age(s) of Tanks 454e
ner/Operator phone #: ()
19,100,101 - FUEL Depotend) as Closed 3 Age(s) of Tanks 454e
19,100,101 - FUEL Depotend) as Closed 3 Age(s) of Tanks 454e
as Closed 3 Age(s) of Tanks 454
as Closed 3 Age(s) of Tanks 454
as Closed 3 Age(s) of Tanks 454
as Closed 3 Age(s) of Tanks 454
as Closed 3 Age(s) of Tanks 454
ck one or more)
,
Change in Storage to a Non-Regulated Substance?
Release Prevention Barrier Installation?
Other? (please explain)
was Yes • No
Tes No
A.C.? Res • No
(Ie) • No
• Yes • No
Yes • No
• Yes (•No)
•Yes • No
• Yes • No
• Yes • No

LIMITED CLOSURE SUMMARY REPORT

Mayport Naval Station Fuel Depot Tanks # 99, 100, 101 Mayport Naval Station, Duval County, Florida Facility ID # 8626008

Summary of Field Activities

On May 24 and 25, 2000 Environmental Science Associates, Inc. (ESA) was contracted by Environmental Recovery, Inc. (ERI) of Atlantic Beach, Florida (PSSSC #PC-C050751) to perform limited closure assessment services following the removal of three Waste Oil Underground Storage Tanks (UST's) from the Fuel Depot facility (Facility ID #8626008) located on Mayport Naval Station in Duval County, Florida (refer to Figure 1., Site Location Map). The purpose of the limited closure summary was to evaluate current site conditions in the vicinity of the tanks. Subsurface soil and groundwater contamination has been documented at the site in the past, and remedial activities have been conducted.

The tanks, which were each approximately 210,000-gallons in capacity, were reported to have been installed in 1954, and had been used to store oily wastewater. The limited closure assessment was conducted following the UST removals, and was performed in accordance with the requirements of Chapter 62-761 F.A.C. and the Florida Department of Environmental Protection (FDEP) guidance document "Pollutant Storage Tank Closure Assessment Requirements" (April 1998) for sites with previously documented contamination. The methods and procedures used during the closure assessment were conducted in accordance with the FDEP "Quality Assurance Standard Operating Procedures for Petroleum Storage System Closure Assessments".

As part of the limited closure assessment, total of three groundwater samples were collected from three (3) pre-existing monitoring wells located on the north side of the tank farm. In addition, a total of three groundwater samples were collected from temporary wells installed on site in selected locations, and a total of three soil samples were collected from soil borings conducted on site for. Each of these samples were

Three (3) pre-existing monitor wells (# MW -15S, # MW-03S, and # MW-13S) were sampled on April 24, 2000, Prior to initiating groundwater sample collection activities, the depth to groundwater and total depth of each well was measured using an electronic water level indicator. The depth to groundwater was determined to be approximately 9 to 10 ft below the original surface grade. A total of five well volumes were purged from each well prior to groundwater sample collection. Well purging and groundwater sample collection of the permanently installed wells was conducted using Teflon bailers. The groundwater samples were placed in laboratory prepared sample containers, appropriately preserved, labeled, sealed in zip-lock type bags, placed on wet ice, and hand-delivered under chain-of-custody procedures to the designated laboratory for analysis. The results of the groundwater analysis is summarized in Table 1, and copies of the laboratory reports and chain of custody forms are provided in Attachment A. Copies of the well sampling field logs are

provided in Attachment B. The results of the laboratory analysis of the groundwater samples collected from the existing monitor wells (#MW-15S, MW-03S, and MW-13S) indicated the presence of petroleum contamination, with the concentrations of Naphthalene ($140\mu g/L$) and Total Petroleum Hydrocarbons (Fl-PRO, 15mg/L) in excess of the FDEP Groundwater Cleanup Target Levels, as specified by Chapter 62-775, F.A.C., Table I.

On May 25, 2000, confirmatory soil samples were collected, and temporary wells were installed and sampled in the vicinity of Tanks # 100 and 101.

A total of three (3) confirmatory soil samples were collected from soil borings conducted in proximity to the former tank locations, as follows:

- ▶ Confirmatory Soil Sample #CS-1 was collected from the south side of Tank #100. Based On the lack of apparent indications of the presence of soil contamination, the sample was collected at a depth of approximately 8.0 ft below the original surface grade, which was just above the level of groundwater saturation, and below the bottom of Tank 100.
- ▶ Confirmatory Soil Sample #CS-2 was collected from the south side of Tank #101. Based on the lack of apparent indications of soil contamination, the sample was collected at a depth of approximately 8.0 ft below the original surface grade, which was just above the level of groundwater saturation, and below the bottom of Tank 101.
- Confirmatory Soil Sample #CS-3 was collected from the midpoint between the location of Tank #100 and 101. Based on the lack of apparent indications of soil contamination, The sample was collected at a depth of approximately 8.0 below the original surface grade, which was just above the level of groundwater saturation, and below the bottom of Tanks #100 and 101.

Each of these samples were collected using a stainless steel hand auger and Encore® brand samplers. Sampling equipment was decontaminated between sampling locations to prevent the possibility of cross-contamination. The samples were placed into pre-cleaned, laboratory supplied sample containers, appropriately labeled, sealed in zip-lock type bags and placed on wet ice for transport, and hand-delivered to a FDEP-approved laboratory (ENCO Laboratories, Jacksonville) for analysis by the following methods:

EPA Method 8260 EPA Method 8270 Fla-PRO RCRA Metals Volatile Organic Compounds Extractable Organic Compounds Total Petroleum Hydrocarbons As, Ba, Cd, Cr, Pb, Hg, Ag, Se

The results of the laboratory analysis of the soil samples were below laboratory detection limits for all chemicals of concern, with the exception of Arsenic, which was detected in soil samples #CS-1 and CS-2 at concentrations of 1.2 mg/Kg and 1.5 mg/Kg, respectively, as well as Chromium

and Lead, which were detected in soil sample #CS-1 at concentrations of 1.0 mg/Kg and 4.4 mg/Kg, respectively. The results of the soil analysis are summarized in Table 2, and soil sampling locations are illustrated in Figure 3.

Following confirmatory soil sample collection, each of the three (3) soil borings were advanced below the top of the water table and temporary monitor wells were installed and sampled. Each of the temporary wells (TMW-1, TMW-2 and TMW-3) were constructed of 2-inch PVC with 5 ft of 0.01.-inch slotted well screen, and was installed such that the well screen intercepted the top of the water table, which was encountered at a depth of approximately 9 ft below surface grade, and the annular space around the well screen was filled with clean 6/20 grade sand pack. Prior to sample collection, each temporary well was purged a total of five (5) standing volumes using a portable peristaltic pump. Groundwater samples were collected from each temporary well using a Teflon bailer. Sample containers, which had been provided by the designated laboratory, were appropriately labeled, preserved, sealed in zip-lock type bags, placed on wet ice, and hand-delivered, under standard chain of custody procedures, to an FDEP-approved environmental laboratory (ENCO Laboratories, Jacksonville) for analysis, as follows:

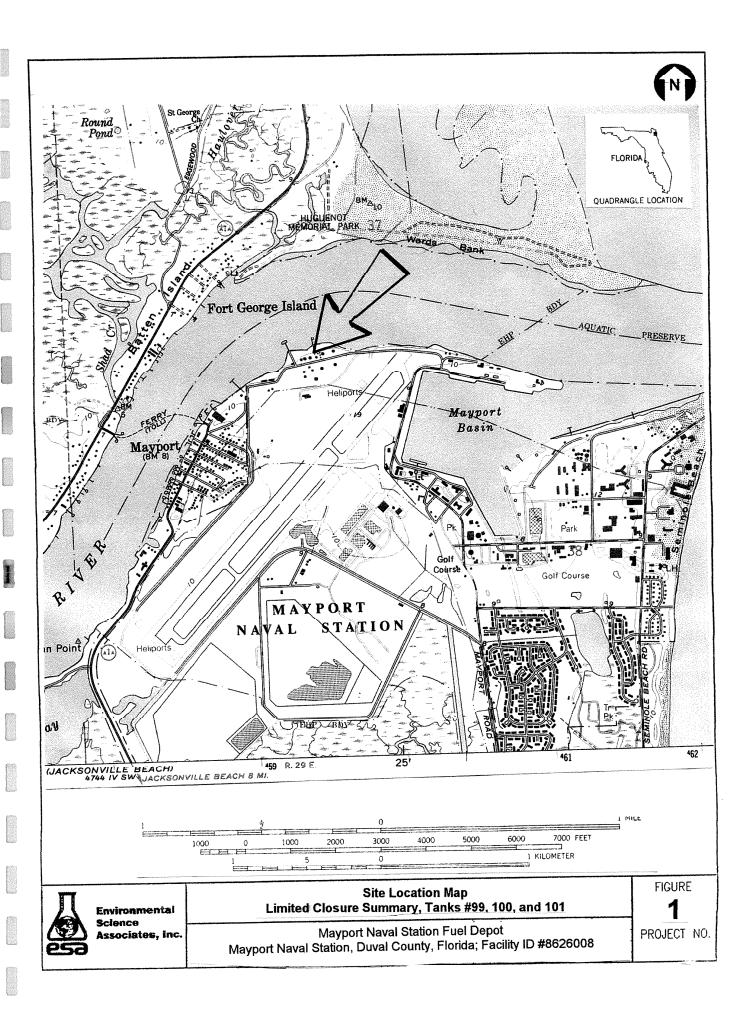
EPA Method 8260 EPA Method 8270 Fla-PRO RCRA Metals Volatile Organic Compounds Extractable Organic Compounds Total Petroleum Hydrocarbons As, Ba, Cd, Cr, Pb, Hg, Ag, Se

The results of the laboratory analysis of the groundwater samples collected from temporary monitor wells # TMW-1, TMW-2, and TMW-3 are summarized in Table 3, and temporary well locations are illustrated in Figure 2. The results of the laboratory analysis of the groundwater samples collected from the temporary monitor wells indicated concentrations of petroleum hydrocarbons, including present in each of the wells, with the concentration of Naphthalene detected in TMW-2 ($120\mu g/L$) and the concentration of Lead detected in TMW-1 (0.074mg/L) in excess of the FDEP Groundwater Cleanup Target Levels, as specified by Chapter 62-775, F.A.C., Table I. Copies of the laboratory report of the groundwater analysis are provided in Attachment A, and the temporary well locations are illustrated in Figure 2.

Copies of the laboratory reports of the soil and groundwater analysis are provided as Attachment A. Also included in the limited closure summary report is a site location map, a site sketch indicating soil and groundwater sampling locations relative to the former tank locations, as well as the results of the laboratory analysis in table form.

Respectfully Submitted, Environmental Science Associates, Inc.

Richard Moriarty Environmental Scientist



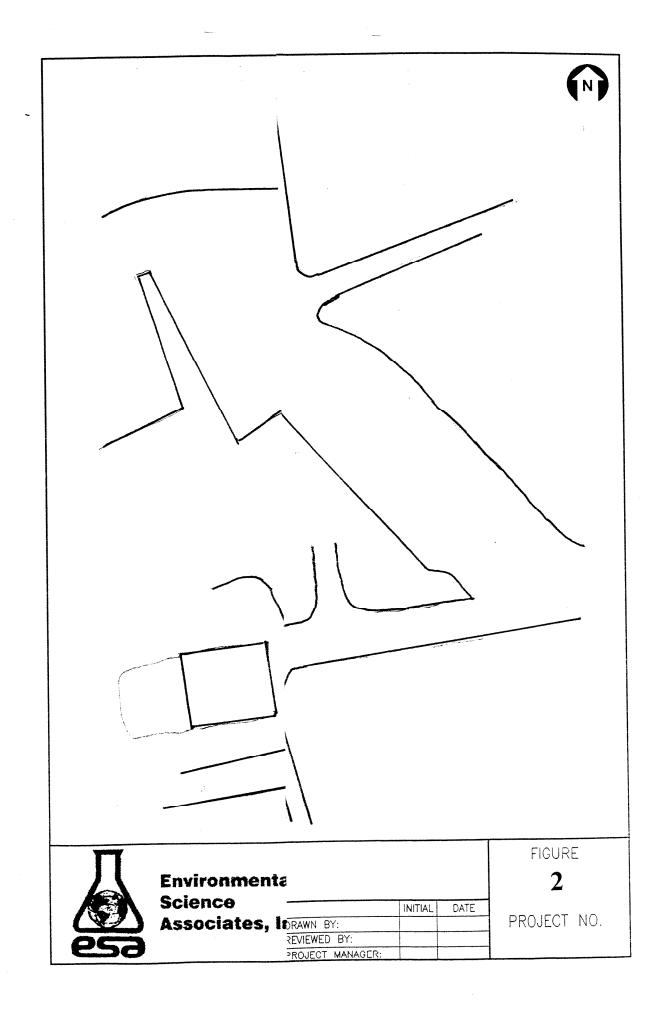


Table 1. Summary of Laboratory Analysis Groundwater Sampling - Monitor Wells # MW-15S, MW-03S, and MW-13S Mayport Naval Station Fuel Depot, Tanks # 99, 100, and 101 Mayport Naval Station, Duval County, Florida

	Monito	or Well ID#		Groundwater Cleanu	
Parameter	MW-15S	MW-03S	MW-13S	Target Levels*	
Volatile Organic Compounds:					
(EPA Method 8260)		221	DDI	N/A	
Isopropylbenzene	$2.6\mu g/L$	BDL	BDL	70μg/L	
1,2,3-Trichlorobenzene	1.8μ g/L	BDL	BDL	70μg/L N/A	
N-Propylbenzene	3.3μ g/L	BDL	BDL	N/A N/A	
Tert-Butylbenzene	2.7μ g/L	BDL	BDL	N/A N/A	
S-Butylbenzene	$5.6\mu\mathrm{g/L}$	BDL	BDL	N/A N/A	
P-Isopropylyoluene	3.7μ g/L	BDL	BDL	N/A N/A	
N-Butylbenzene	$6.8\mu\mathrm{g/L}$	BDL	BDL	-	
Naphthalene	$140 \mu \mathrm{g/L}$	9.2μ g/L	4.8μg/L	20μg/L N/A	
All other 8260 Compounds	BDL	BDL	BDL	N/A	
Semi-Volatile Organic Compounds:					
(EPA Method 8270)				37/4	
Bis(2-ethylhexylphthalate	14μ g/L	BDL	BDL	N/A	
Flourene	17μ g/L	BDL	BDL	280μg/L	
1-Methylnaphthalene	100μ g/L	BDL	BDL	20μ g/L	
2-Methylnaphthalene	90μ g/L	BDL	BDL	20μg/L	
Naphthalene	48μ g/L	BDL	$4.8\mu g/L$	20μg/L	
Phenanthrene	22μ g/L	BDL	BDL	$210\mu g/L$	
All other 8270 Compounds	BDL	BDL	BDL	N/A	
FLA PRO:	15mg/L	BDL	BDL	5mg/L	
Total RCRA Metals:				~ tr	
Arsenic	BDL	0.012mg/L	0.011mg/L	50μg/L	
Barium	BDL	BDL	BDL	$2000\mu \mathrm{g/L}$	
Cadmium	BDL	BDL	0.002 mg/L	$5\mu g/L$	
Chromium	BDL	BDL	0.031 mg/L	100μg/L	
Lead	BDL	BDL	0.009 mg/L	15μ g/L	
Mercury	0.00022mg/L	BDL	BDL	$2\mu \mathbf{g}/\mathbf{L}$	
Silver	BDL	BDL	BDL	50μ g/L	
Selenium	BDL	BDL	BDL	50μg/L	

BDL = Below Detection Limits; N/A = Not Applicable

^{*}Groundwater Cleanup Target Levels as per 62-775 F.A.C., Table I, Groundwater Cleanup Target Levels

Table 2.

Summary of Laboratory Analysis

Confirmatory Soil Sampling

Mayport Naval Station Fuel Depot, Tanks # 99, 100, and 101

Mayport Naval Station, Duval County, Florida

	Confirma	itory Soil Sar	nple ID	FDEP Soil Cleanup
Parameter	CS-1	CS-2	CS-3	Target Levels*
Volatile Organic Compounds: (EPA Method 8260)				
All 8260 Compounds	BDL	BDL	BDL	N/A
Semi-Volatile Organic Compounds: (EPA Method 8270)				
All 8270 Compounds	BDL	BDL	BDL	N/A
FLA PRO:	BDL	BDL	BDL	340mg/Kg 340mg/Kg
Total RCRA Metals:				
Arsenic	1.0 mg/Kg	1.5mg/Kg	BDL	3.7 mg/Kg $29 mg/Kg$
Barium	BDL	BDL	BDL	87000mg/Kg TCLP
Cadmium	BDL	BDL	BDL	1300mg/Kg 8mg/Kg
Chromium	1.0 mg/Kg	BDL	BDL	420mg/Kg 38mg/Kg
Lead	4.0 mg/Kg	BDL	BDL	920mg/Kg TCLP
Mercury	BDL	BDL	BDL	28mg/Kg TCLP
Silver	BDL	BDL	BDL	9100mg/Kg TCLP
Selenium	BDL	BDL	BDL	10000mg/Kg TCLP

BDL = Below Detection Limits; N/A = Not Applicable

^{*}Soil Cleanup Target Levels as per 62-775 F.A.C., Table II, Direct Exposure, Industrial Use Assumption/Leachability

Table 3.

Summary of Laboratory Analysis

Groundwater Sampling - Temporary Monitor Wells #TMW-1, TMW-2, and TMW-3

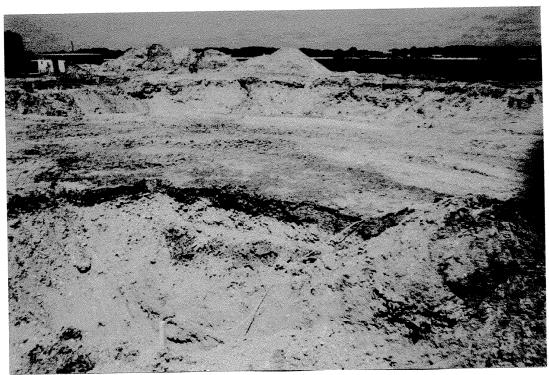
Mayport Naval Station Fuel Depot, Tanks # 99, 100, and 101

Mayport Naval Station, Duval County, Florida

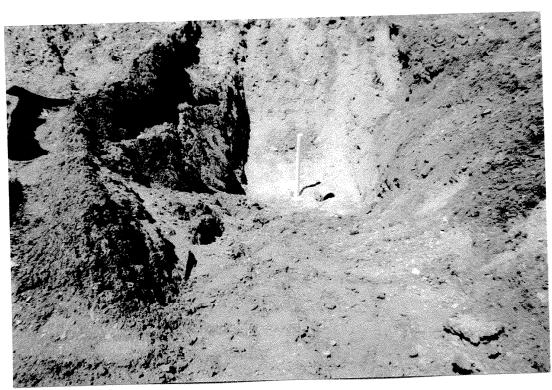
	M	onitor Well II		Groundwater Cleanup	
Parameter	TMW-1	TMW-2	TMW-3	Target Levels*	
Volatile Organic Compounds:					
(EPA Method 8260)					
Isopropylbenzene	$22\mu g/L$	13μ g/L	BDL	N/A	
MTBE	BDL	$28\mu g/L$	BDL	$70\mu\mathrm{g/L}$	
N-Propylbenzene	44μ g/L	$25\mu g/L$	BDL	N/A	
Tert-Butylbenzene	BDL	2.6μ g/L	BDL	N/A	
S-Butylbenzene	BDL	15μ g/L	BDL	N/A	
P-Isopropylyoluene	BDL	BDL	BDL	N/A	
N-Butylbenzene	BDL	$10\mu \mathrm{g/L}$	BDL	N/A	
Naphthalene	BDL	120μ g/L	$8.5\mu \mathrm{g/L}$	$20\mu\mathrm{g/L}$	
All other 8260 Compounds	BDL	BDL	BDL	N/A	
Semi-Volatile Organic Compounds:					
(EPA Method 8270)					
1-Methylnaphthalene	BDL	$46\mu g/L$	BDL	$20\mu g/L$	
2-Methylnaphthalene	BDL	45μ g/L	BDL	$20\mu\mathrm{g/L}$	
Naphthalene	BDL	$42\mu g/L$	BDL	$20\mu\mathrm{g/L}$	
All other 8270 Compounds	BDL	BDL	BDL	N/A	
FLA PRO:	BDL	BDL	BDL	5mg/L	
Total RCRA Metals:					
Arsenic	BDL	BDL	BDL	$50\mu g/L$	
Barium	BDL	BDL	BDL	$2000 \mu \mathrm{g/L}$	
Cadmium	BDL	BDL	0.001mg/L	$5\mu \mathrm{g/L}$	
Chromium	BDL	BDL	BDL	$100\mu \mathrm{g/L}$	
Lead	0.074mg/L	BDL	BDL	$15\mu \mathrm{g/L}$	
Mercury	BDL	BDL	BDL	$2\mu { m g/L}$	
Silver	BDL	BDL	BDL	$50\mu \mathrm{g/L}$	
Selenium	BDL	BDL	BDL	$50\mu \mathrm{g/L}$	

BDL = Below Detection Limits; N/A = Not Applicable

^{*}Groundwater Cleanup Target Levels as per 62-775 F.A.C., Table I, Groundwater Cleanup Target Levels



1. Photograph facing generally northwest, overlooking former tank locations.



2. Photograph overlooking typical Temporary Monitor Well (TMW-3)

Photodocumentation: Limited Closure Summary, May 25, 2000
Tanks 99, 100, and 101, Mayport Naval Station Fuel Farm
Mayport Naval Station, Duval County, Florida; Facility ID # 8626008

ATTACHMENT A

Laboratory Reports

Environmental Conservation Laboratories, Inc.

4810 Executive Park Court, Suite 211 Jacksonville, Florida 32216-6069 904 / 296-3007 Fax 904 / 296-6210 www.encolabs.com



DHRS Certification No. E82277

CLIENT: Environmental Recovery

ADDRESS: 251 Levy Road

Atlantic Beach, FL 32233

REPORT # : JAX10968

DATE SUBMITTED: April 25, 2000

DATE REPORTED : May 3, 2000

PAGE 1 OF 65

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT : 2007

Mayport Naval Station

#1	- MW-15S @ 13:45	(04/24/00)
#2	- MW-03S @ 14:15	(04/24/00)
#3	- MW-13S @ 14:45	(04/24/00)
#4	- TMW-1 @ 11:40	(04/25/00)
#5	- TMW-2 @ 12:20	(04/25/00)
#6	- TMW-3 @ 12:45	(04/25/00)
#7	- CS-1 @ 09:15	(04/25/00)
#8	- CS-2 @ 10:00	(04/25/00)
#9	- CS-3 @ 10:30	(04/25/00)

PROJECT MANAGER

Scott D. Marti

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 2 OF 65

	EPA METHOD 8260 - VOLATILE ORGANICS	<u>MW-15S</u>	<u>MW-03S</u>	Units
	Dichlorodifluoromethane	2.0 U	2.0 U	μg/L
192	Chloromethane	1.0 U	1.0 U	μg/L
	Vinyl Chloride	1.0 U	1.0 U	μg/L
	Bromomethane	2.0 U	2.0 U	μg/L
	Chloroethane	2.0 U	2.0 U	μg/L
	Trichlorofluoromethane	1.0 U	1.0 U	μg/L
	1,1-Dichloroethene	1.0 U	1.0 U	μg/L
	Acetone	50 U	50 U	μg/L
	Carbon Disulfide	50 U	50 U	μg/L
ereten.	Methylene Chloride	5.0 U	5.0 U	μg/L
	t-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
	Methyl tert-butyl ether	1.0 U	1.0 U	μg/L
	1,1-Dichloroethane	1.0 <u>U</u>	1.0 U	μg/L
	2,2-Dichloropropane	2.0 U	2.0 U	μg/L
1	c-1,2-Dichloroethene	1.0 U	1.0 <u>U</u>	μg/L
	2-Butanone	20 U	20 U	μg/L
georges.	Chloroform	1.0 U	1.0 U	μg/L
	1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
	Carbon tetrachloride	1.0 U	1.0 U	μg/L
	1,1-Dichloropropene	1.0 U	1.0 U	μg/L
	Benzene	1.0 U	1.0 U	μg/L
	1,2-Dichloroethane	1.0 U	1.0 U	μg/L
€25000°	Trichloroethene	1.0 U	1.0 U	μg/L
£1500	1,2-Dichloropropane	1.0 U	1.0 U	μg/L
	Dibromomethane	1.0 U	1.0 U	μg/L
	Bromodichloromethane	1.0 U	1.0 U	μg/L
				and the second second

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 3 OF 65

	PA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-15S		<u>MW-035</u>	Units
	2-Chloroethyl vinyl ether	6.0 U		6.0 U	μ g/L
	c-1,3-Dichloropropene	1.0 U	i ·	1.0 U	μg/L
	4-Methyl-2-pentanone	20 U		20 U	μg/L
	Toluene	1.0 U		1.0 U	μ g/L
	t-1,3-Dichloropropene	1.0 U		1.0 U	$\mu g/L$
3023	1,1,2-Trichloroethane	1.0 U		1.0 U	μ g/L
55500.	Tetrachloroethene	3.0 U		3.0 U	μ g/L
	1,3-Dichloropropane	1.0 U		1.0 U	μ g/L
	2-Hexanone	20 U		20 U	μ g/L
	Dibromochloromethane	1.0 U		1.0 U	μ g/L
	1,2-Dibromoethane	1.0 U		1.0 U	μ g/L
	Chlorobenzene	1.0 U		1.0 U	μ g/L
	1,1,1,2-Tetrachloroethane	1.0 U		1.0 U	μg/L
e e e e e e e e e e e e e e e e e e e	Ethylbenzene	1.0 U		1.0 U	μ g/L
1	m-Xylene & p-Xylene	2.0 U		2.0 U	$\mu { t g}/{ t L}$
	o-Xylene	1.0 U		1.0 U	μ g/L
,	Styrene	1.0 U		1.0 U	μ g/L
	Bromoform	1.0 U		1.0 U	μ g/L
	Isopropylbenzene	2.6 I		1.0 U	μg/L
	1,1,2,2-Tetrachloroethane			1.0 U	μg/L
	Bromobenzene	1.0 U		1.0 U	μg/L
	1,2,3-Trichlorobenzene	1.8		1,0 U	μg/L
	n-Propylbenzene	3.3		1.0 U	μg/L
	2-Chlorotoluene	1.0 U		1.0 U	$\mu g/L$
	1,3,5-Trimethylbenzene	1.0 U		1.0 U	$\mu { m g/L}$
	4-Chlorotoluene	1.0 U		1.0 U	μg/L

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL)
and the Practical Quantitation Level (PQL).

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 4 OF 65

	EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	٠.	MW-15S	MW-03S	Units
	tert-Butylbenzene 1,2,4-Trimethylbenzene		2.7	1.0 U	μg/L
	s-Butylbenzene		1.0 U 5.6	1.0 U	μg/L
	1,3-Dichlorobenzene		1.0 U	1.0 U 1.0 U	μg/L
	p-Isopropyltoluene	200	3.7	1.0 U	μg/L
	1,4-Dichlorobenzene		1.0 U	1.0 U	μg/L μg/L
	n-Butylbenzene		6.8	1.0 U	μg/L
	1,2-Dichlorobenzene		1.0 U	1.0 U	μg/L
	1,2-Dibromo-3-chloropropane		1.0 U	1.0 U	μg/L
	1,2,4-Trichlorobenzene		1.0 U	1.0 U	μg/L
	Hexachlorobutadiene		1.0 U	1.0 U	μ g/L
	Naphthalene		140	9.2	μ g/L
	1,2,3-Trichloropropane		1.0 U	1.0 U	μ g/L
	Bromochloromethane		1.0 U	1.0 U	μ g/L
I.	Surrogate:		% RECOV	% RECOV	LIMITS
	Dibromofluoromethane		93	88	$\frac{11M113}{38-143}$
	D8-Toluene		92	100	78-126
	Bromofluorobenzene		98	104	72-132
csod	Date Analyzed		05/01/00	05/01/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 5 OF 65

	EPA METHOD 8270 -				
	SEMIVOLATILE ORGANICS	<u>MW-15S</u>		MW-03S	Units
Anneton.	Assaulthans	10.11			
	Acenaphthene	10 U 10 U		10 U	μ g/L
	Acenaphthylene			10 U	μ g/L
	Anthracene Benzidine	10 U		10 U	μg/L
		10 U		10 U	μ g/L
	Benzo (a) anthracene	10 U		10 U	μg/L
*Experience	Benzo(b) fluoranthene	10 U		10 U	μ g/L
#FF550-	Benzo(k) fluoranthene	10 U		10 U	$\mu { t g}/{ t L}$
	Benzo(g,h,i)perylene	10 U		10 U	μ g/L
W.	Benzo(a) pyrene	10 U		10 U	$\mu g/L$
	Benzylbutyl phthalate	10 U		10 U	$\mu { t g}/{ t L}$
	Bis (2-chloroethoxy) methane	10 U		10 U	μ g/L
	Bis (2-chloroethyl) ether	10 U		10 U	$\mu g/L$
- METERON.	Bis(2-chloroisopropyl)ether	10 U		10 U	μ g/L
	Bis(2-ethylhexyl)phthalate	14		10 U	μg/L
j	4-Bromophenylphenyl ether	10 U		10 U	μg/L
	2-Chloronaphthalene	10 U	- 1	10 U	μ g/L
	4-Chlorophenyl phenyl ether	10 U		10 U	$\mu { t g}/{ t L}$
	Chrysene	10 U		10 U	μ g/L
	Dibenzo(a,h) anthracene	10 U		10 U	μ g/L
	1,2-Dichlorobenzene	10 U		10 U	μg/L
6 3350	1,3-Dichlorobenzene	10 U	1.	10 U	$\mu { m g/L}$
	1,4-Dichlorobenzene	10 U	*	10 U	$\mu { t g}/{ t L}$
₩.	3,3'-Dichlorobenzidine	20 U		20 U	μ g/L
	Diethyl phthalate	10 U		10 U	μg/L
	Dimethyl phthalate	10 U		10 U	μg/L
	Di-n-butyl phthalate	10 U	1 41	10 U	μg/L
	Di-n-octyl phthalate	10 U		10 U	$\mu g/L$
	2,4-Dinitrotoluene	10 U	·	ם 10 ס	μg/L
	2,6-Dinitrotoluene	10 U		10 U	μg/L
1002				and the second of the second o	· · -

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 6 OF 65

	EPA METHOD 8270 (cont.) -	,						
	SEMIVOLATILE ORGANICS	MV	<u> 1-155</u>		MW - 0	<u>3S</u>	<u>U</u>	nits
	Fluoranthene		10 U		10	IJ	μ	g/L
	Fluorene		17		10	U		g/L
	Hexachlorobenzene		10 U			U		g/L
	Hexachlorobutadiene		10 U			U		g/L
	Hexachlorocyclopentadiene		10 U		10	U		g/L
C	Hexachloroethane		10 U	•	10			g/L
distribus.	Indeno(1,2,3-cd)pyrene		10 U		10	U		g/L
	Isophorone		10 U		10	U		g/L
	1-Methylnaphthalene	1	00			Ū		g/L
	2-Methylnaphthalene		90			Ū		g/L
	Naphthalene		48		the state of the s	IJ		g/L
	Nitrobenzene		10 U		10			g/L
€2000F *.	N-Nitrosodimethylamine		10 U			Ū		g/L
AND DOOR	N-Nitrosodi-n-propylamine		10 U		10			g/L
ì	N-Nitrosodiphenylamine		10 U .		10			g/L
	Phenanthrene		22			Ū		g/L
	Pyrene		10 U			Ū		g/L
	1,2,4-Trichlorobenzene		10 U		10			g/L
	Benzyl Alcohol		10 U		10			g/L
400200	Benzoic Acid		10 U	1 · · · · · · · · · · · · · · · · · · ·	10			g/L
600	4-Chloroaniline		10 U			Ū	μ; 110	a\r a\r
	2-Nitroaniline		10 U		10			g/L
.	3-Nitroaniline		10 U	*	10	,		g/L
	4-Nitroaniline		10 U		10		μ.	3/L
	Dibenzofuran		10 U		10		μς	3/L
				and the second	,	_	μ:	,, <u></u>

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 7 OF 65

EPA METHOD 8270 (cont.) - SEMIVOLATILE ORGANICS	MW-15s	<u>MW-03S</u>	Units
Pyridine 4-Chloro-3-methylphenol	10 U 10 U	10 U 10 U	μg/L μg/L
2-Chlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol	10 U 10 U 10 U 50 U	10 U 10 U 10 U 50 U	μg/L μg/L μg/L μg/L
2-Methyl-4,6-dinitrophenol 2-Nitrophenol 4-Nitrophenol	30 U 10 U 10 U	30 U 10 U 10 U	μg/L μg/L μg/L
Pentachlorophenol Phenol 2,4,6-Trichlorophenol 2-Methylphenol	10 U 10 U 10 U 10 U	10 U 10 U 10 U 10 U	μg/L μg/L μg/L
3 & 4-Methylphenol 2,4,5-Trichlorophenol	10 U 10 U	10 U 10 U	μg/L μg/L μg/L
Surrogate: Nitrobenzene -D5 2-Fluorobiphenyl Terphenyl -D14	% RECOV 71 90 117	% RECOV 56 75 126	LIMITS 30 106 38-107 29-131
Phenol -D5 2-Fluorophenol 2,4,6-Tribromophenol Date Extracted	47 50 #132	41 51 118	12-87 19-115 35-126
Date Analyzed	04/28/00 04/28/00	04/28/00 04/28/00	

^{# =} Surrogate recovery was outside of laboratory established limits. U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 8 OF 65

69,007	TOTAL METALS	METHOD	<u>MW-15S</u>		MW-03S	Units
	Arsenic Date Analyzed	200.7	0.010 U 04/26/00		0.012 I 04/26/00	mg/L
	Barium Date Analyzed	200.7	0.10 U 04/26/00		0.10 U 04/26/00	mg/L
	Cadmium Date Analyzed	200.7	0.0010 U 04/26/00		0.0010 U 04/26/00	mg/L
	Chromium Date Analyzed	200.7	0.010 U 04/26/00		0.010 U 04/26/00	mg/L
	Lead Date Analyzed	200.7	0.0050 U 04/26/00		0.0050 U 04/26/00	mg/L
•	Mercury Date Analyzed	245.1	0.00022 I 04/27/00		0.00020 U 04/27/00	mg/L
	Selenium Date Analyzed	200.7	0.010 U 04/26/00		0.010 U 04/26/00	mg/L
	Silver Date Analyzed	200.7	0.010 U 04/26/00		0.010 U 04/26/00	mg/L
-	EPA METHOD FLPRO - PETROL. RESIDUAL ORG		<u>MW-15S</u>		<u>MW-03S</u>	<u>Units</u>
	Hydrocarbons (C8-C4))) 	15 1	D1	0.20 U	mg/L
	Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 93 05/01/00 05/02/00		% RECOV 67 05/01/00 05/01/00	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL)

and the Practical Quantitation Level (PQL). D1 = Analyte value determined from a 1:5 dilution,

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 10 OF 65

	VOLATILE ORGANICS	<u>MW-13S</u>	<u>TMW-1</u>	<u>Units</u>
,	Dichlorodifluoromethane Chloromethane	2.0 U 1.0 U	10 U D1 5.0 U D1	μg/L μg/L
E000039	Vinyl Chloride	1.0 U	5.0 U D1	μg/L
Baltico.	Bromomethane	2.0 U	10 U D1	μ g/L
	Chloroethane	2.0 U	10 U D1	μ g/L
U.S	Trichlorofluoromethane	1.0 U	5.0 U D1	μg/L
	1,1-Dichloroethene	1.0 U	5.0 U D1	μ g/L
	Acetone	50 U	250 U D1	μg/L
	Carbon Disulfide	50 U	250 U D1	μ g/L
	Methylene Chloride	5.0 U	25 U D1	μ g/L
	t-1,2-Dichloroethene	1.0 U	5.0 U D1	μ g/L
	Methyl tert-butyl ether	1.0 U	5.0 U D1	μg/L
ess.	1,1-Dichloroethane	1.0 U	5.0 U D1	μg/L
waterco	2,2-Dichloropropane	2.0 U	10 U D1	μg/L
j	c-1,2-Dichloroethene	1.0 U	5.0 U D1	μg/L
	2-Butanone	20 U	100 U D1	μg/L
	Chloroform	1.0 U	5.0 U D1	μg/L
	1,1,1-Trichloroethane	1.0 <u>U</u>	5.0 U D1	μg/L
	Carbon tetrachloride	1.0 U	5.0 U D1	μg/L
Wagao	1,1-Dichloropropene	1.0 U	5.0 U D1	μg/L
6 000 -	Benzene	1.0 U	5.0 U D1	μg/L
	1,2-Dichloroethane	1.0 <u>U</u>	5.0 U D1	μg/L
	Trichloroethene	1.0 U	5.0 U D1	μg/L
	1,2-Dichloropropane	1.0 U	5.0 U D1	μg/L
	Dibromomethane	1.0 <u>U</u>	5.0 U D1	μg/L
	Bromodichloromethane		5.0 U D1	μg/L
		the contract of the contract o		

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:5 dilution.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 11 OF 65

	EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	MW-13S	<u>TMW-1</u>	Units
	2-Chloroethyl vinyl ether	6.0 U	30 U	D1 μ g/L
	c-1,3-Dichloropropene	1.0 U	5.0 U	, , ,
2000	4-Methyl-2-pentanone	20 U	100 U	
1890	Toluene	1.0 U	5.0 U	
	t-1,3-Dichloropropene	1.0 U	5.0 U	
	1,1,2-Trichloroethane	1.0 U	5.0 U	
	Tetrachloroethene	3.0 U	15 U	, ,,
	1,3-Dichloropropane	1.0 U	5.0 U	
	2-Hexanone	20 U	100 U	
	Dibromochloromethane	1.0 U	5.0 U	
990% 0000	1,2-Dibromoethane	1.0 U	5.0 U	, , ,
	Chlorobenzene	1.0 U	5.0 U	, 5.
	.1,1,1,2-Tetrachloroethane	1.0 U	5.0 U	1 3.
	Ethylbenzene	1.0 U	5.0 U	
•	m-Xylene & p-Xylene	2.0 U	10 U	
	o-Xylene	1.0 U	5.0 บ	
	Styrene	1.0 U	5.0 U	
	Bromoform	1.0 U	5.0 U	
	Isopropylbenzene	1.0 U	22	
	1,1,2,2-Tetrachloroethane	1.0 U	5.0 U	
E10581%	Bromobenzene	1.0 U	5.0 U	
	1,2,3-Trichlorobenzene	1.0 U	5.0 Ü	
	n-Propylbenzene	1.0 U	44	, ,
	2-Chlorotoluene	1.0 U	5.0 U	
	1,3,5-Trimethylbenzene	1.0 U	5.0 ປ	
	4-Chlorotoluene	1.0 U	5.0 U	$\mu \text{g/L}$
200		the state of the s		

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:5 dilution.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 12 OF 65

tert-Butylbenzene 1.0 U 1,2,4-Trimethylbenzene 1.0 U s-Butylbenzene 1.0 U	5.0 U D1 5.0 U D1 5.0 U D1	μg/L μg/L μg/L
1,3-Dichlorobenzene 1.0 U p-Isopropyltoluene 1.0 U 1,4-Dichlorobenzene 1.0 U	5.0 U D1 5.0 U D1 5.0 U D1	μg/L μg/L μg/L
n-Butylbenzene 1.0 U 1,2-Dichlorobenzene 1.0 U 1,2-Dibromo-3-chloropropane 1.0 U	5.0 U D1 5.0 U D1 5.0 U D1	μg/L μg/L μg/L
1,2,4-Trichlorobenzene 1.0 U Hexachlorobutadiene 1.0 U Naphthalene 4.8 1,2,3-Trichloropropane 1.0 U	5.0 U D1 5.0 U D1 10 U D1	μg/L μg/L μg/L
Bromochloromethane 1.0 U Surrogate: % RECOV	5.0 U D1 5.0 U D1	μg/L μg/L
Dibromofluoromethane 94 D8-Toluene 106 Bromofluorobenzene 103 Date Analyzed 05/01/00	% RECOV 92 94 94 05/01/00	18-143 78-126 72-132

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:5 dilution.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 13 OF 65

	EPA METHOD 8270 -	-			
	SEMIVOLATILE ORGANICS	MW-135		TMW-1	Units
	Acenaphthene	10 U		10 U	μg/L
	Acenaphthylene	10 U		10 U	μ g/L
	Anthracene	10 U		10 U	$\mu { t g}/{ t L}$
	Benzidine	10 U		10 U	μ g/L
	Benzo(a) anthracene	10 U		10 U	$\mu { m g/L}$
4 333	Benzo(b) fluoranthene	10 U		10 U	μ g/L
eeron	Benzo(k) fluoranthene	10 U		10 U	μ g/L
	Benzo(g,h,i)perylene	10 U		10 U	μ g/L
	Benzo(a)pyrene	10 U		10 U	μ g/L
	Benzylbutyl phthalate	10 U	•	10 U	μ g/L
	Bis(2-chloroethoxy)methane	10 U		10 U	μ g/L
	Bis(2-chloroethyl)ether	10 U		10 U	μġ/L
Name of	Bis(2-chloroisopropyl)ether	10 U		10 U	μ g/L
4600	Bis(2-ethylhexyl)phthalate	10 U		10 U	μ g/L
j	4-Bromophenylphenyl ether	10 U		10 U	$\mu { t g}/{ t L}$
	2-Chloronaphthalene	10 U		10 U	μg/L
	4-Chlorophenyl phenyl ether	10 U		10 U	μg/L
	Chrysene	10 U	the state of the s	10 U	μ g/L
	Dibenzo(a,h)anthracene	10 U		10 U	$\mu exttt{g/L}$
	1,2-Dichlorobenzene	10 U		10 U	μ g/L
600	1,3-Dichlorobenzene	10 U	· · ·	10 U	μg/L
	1,4-Dichlorobenzene	10 U		10 U	μg/L
	3,3'-Dichlorobenzidine	20 U		.20 U	μg/L
	Diethyl phthalate	10 U	1. 1	10 U	μg/L
	Dimethyl phthalate	10 ט		10 U	μg/L
L.	Di-n-butyl phthalate	10 U		10 U	μg/L
	Di-n-octyl phthalate	10 U		10 U	μ g/L
	2,4-Dinitrotoluene	10 U		10 U	μ g/L
	2,6-Dinitrotoluene	10 U		10 U	μ g/L
Williams					

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 14 OF 65

	EPA METHOD 8270 (cont.) - SEMIVOLATILE ORGANICS	MW-13S	<u>TMW-1</u>	Units
	Fluoranthene Fluorene	10 U 10 U	10. U	μg/L
	Hexachlorobenzene	10 U	10 U 10 U	μg/L
	Hexachlorobutadiene	10 U	10 U	μg/L μg/L
	Hexachlorocyclopentadiene	10 U	10 U	μg/L μg/L
	Hexachloroethane	10 Û	10 U	μg/L
	Indeno(1,2,3-cd)pyrene	10 U	10 U	μg/L
	Isophorone	10 U	10 U	μg/L
	1-Methylnaphthalene	10 U	10 U	μg/L
40-1233	2-Methylnaphthalene	10 U	10 U	μg/L
600	Naphthalene	10 U	ໍ 10 ປ	μg/L
	Nitrobenzene	10 U	10 U	μg/L
C	N-Nitrosodimethylamine	10 U	10 U-	$\mu g/L$
Antitrio	N-Nitrosodi-n-propylamine	10 U	10 U	μg/L
1	N-Nitrosodiphenylamine	10 U	10 U	μg/L
	Phenanthrene	10 U	. 10 U	μg/L
	Pyrene	10 U	10 U	μg/L
	1,2,4-Trichlorobenzene	10 U	10 <u>U</u>	μg/L
	Benzyl Alcohol	10 U	10 U	μg/L
	Benzoic Acid	10 U	10 U	μg/L
	4-Chloroaniline	10 U	10 U	μg/L
	2-Nitroaniline	10 U	10 U	μg/L
	3-Nitroaniline	10 U	10 U	μg/L
1000	4-Nitroaniline	10 U	10 U	μg/L
	Dibenzofuran	10 U	10 Ų.	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 15 OF 65

EPA METHOD 8270 (cont.) SEMIVOLATILE ORGANICS		<u>TMW-1</u>	Units
Pyridine	10 U	10 U	μg/L
4-Chloro-3-methylphenol	10 U	10 U	μg/L
2-Chlorophenol	10 U	10 U	μ g/L
2,4-Dichlorophenol	10 U	10 U	$\mu { t g}/{ t L}$
2,4-Dimethylphenol	10 U	10 U	μ g/L
2,4-Dinitrophenol	50 U	50 U	μ g/L
2-Methyl-4,6-dinitropher	ol 30 U	30 U	μ g/L $^{\circ}$
2-Nitrophenol	10 U	10 U	μ g/L
4-Nitrophenol	10 U	10 U	μg/L
Pentachlorophenol	10 U	10 U	μg/L
Phenol	10 U	10 U	$\mu { m g}/{ m L}$
2,4,6-Trichlorophenol	10 U	10 U	$\mu g/L$
2-Methylphenol	10 U	10 U	$\mu g/L$
3 & 4-Methylphenol	10 U	10 U	$\mu g/L$
2,4,5-Trichlorophenol	10 U	10 U	μ g/L
Surrogate:	% RECOV	% RECOV	LIMITS
Nitrobenzene -D5	47	49	30-106
2-Fluorobiphenyl	60	62	38-107
Terphenyl -D14	9 7	100	29-131
Phenol -D5	36 , 1	3.8	12-87
2-Fluorophenol	1. 45	47	19-115
2,4,6-Tribromophenol	7.8	86	35-126
Date Extracted	04/28/00	04/28/00	
Date Analyzed	04/28/00	04/28/00	

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL)
and the Practical Quantitation Level (PQL).

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 16 OF 65

	TOTAL METALS	METHOD	MW-13S	<u>TMW-1</u>	Units
	Arsenic Date Analyzed	200.7	0.011 I 04/26/00	0.010 U 04/26/00	mg/L
	Barium Date Analyzed	200.7	0.10 U 04/26/00	0.10 U 04/26/00	mg/L
	Cadmium Date Analyzed	200.7	0.0020 I 04/26/00	0.0010 U 04/26/00	mg/L
	Chromium Date Analyzed	200.7	0.031 04/26/00	0.010 U 04/26/00	mg/L
	Lead Date Analyzed	200.7	0.0090 I 04/26/00	0.074 04/26/00	mg/L
]	Mercury Date Analyzed	245.1	0.00020 U 04/27/00	0.00020 U 04/27/00	mg/L
	Selenium Date Analyzed	200.7	0.010 U 04/26/00	0.010 U 04/26/00	mg/L
	Silver Date Analyzed	200.7	0.010 U 04/26/00	0.010 U 04/26/00	mg/L
	EPA METHOD FLPRO - PETROL. RESIDUAL C		<u>MW-135</u>	<u> TMW-1</u>	Units
L	Hydrocarbons (C8-C	240)	0.20 U	0.20 υ	mg/L
	Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 70 05/01/00 05/01/00	% RECOV 83 05/01/00 05/01/00	<u>LIMITS</u> 65-140

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL)
 and the Practical Quantitation Level (PQL).

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 17 OF 65

	EPA METHOD 8260 -					
	VOLATILE ORGANICS	<u>-WMT</u>	2	TMW-	-3 <u>Units</u>	
	Dichlorodifluoromethane	2.0	U	2.0	U μg/L	
	Chloromethane	1.0	U	1.0		
	Vinyl Chloride	1.0	U ·	1.0		
6 000	Bromomethane	2.0	U	2.0		
	Chloroethane	2.0	Ū	2.0		
	Trichlorofluoromethane	1.0	U	1.0	, , , , , , , , , , , , , , , , , , , ,	
	1,1-Dichloroethene	1.0	U .	1.0		
	Acetone	50	Ū	50		
	Carbon Disulfide	50	U .	50		
	Methylene Chloride	5.0	U	5.0	, ,	
	t-1,2-Dichloroethene	1.0	U	1.0	1 31	
	Methyl tert-butyl ether	28		1.0	, , , , , , , , , , , , , , , , , , , ,	
£223	1,1-Dichloroethane	1.0	U	1.0		
and con-	2,2-Dichloropropane	2.0	Ü .	2.0	$U \mu g/L$	
1	c-1,2-Dichloroethene	1.0	Ū	1.0		
	2-Butanone	20	U	20		
	Chloroform	1.0	IJ	1.0		
	1,1,1-Trichloroethane	1.0	IJ	1.0		
	Carbon tetrachloride	1.0	J	1.0		
	1,1-Dichloropropene	1.0		1.0	$U \mu g/L$	
	Benzene	1.0		1.0	$U \mu g/L$	
	1,2-Dichloroethane	1.0		1.0	U μg/L	
	Trichloroethene	1.0	J	1.0	$U \mu g/L$	
	1,2-Dichloropropane	1.0	J	1.0		
	Dibromomethane	1.0		1.0		
	Bromodichloromethane	1.0	J	1.0	$U \mu g/L$	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 18 OF 65

B	EPA METHOD 8260 (cont.) -	· ·		
	VOLATILE ORGANICS	<u>TMW-2</u>	<u>TMW-3</u>	<u>Units</u>
	2-Chloroethyl vinyl ether	6.0 U	6.0 U	μg/L
	c-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
No.Europ	4-Methyl-2-pentanone	20 U	20 U	μg/L
6 77731	Toluene	1.0 U	1.0 U	μg/L
	t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	1,1,2-Trichloroethane	1.0 U	1.0 U	μg/L
	Tetrachloroethene	3.0 U	3.0 U	μg/L
	1,3-Dichloropropane	1.0 U	1.0 U	μg/L
	2-Hexanone	20 U -	20 U	μg/L
W00023	Dibromochloromethane	1.0 U	1.0 U	μg/L
	1,2-Dibromoethane	1.0 U	1.0 U	μg/L
	Chlorobenzene	1.0 U	1.0 U	μg/L
	1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
	Ethylbenzene	1.0 U	1.0 U	μg/L
1	m-Xylene & p-Xylene	2.0 U	2.0 U	μg/L
1	o-Xylene	1.0 U	1.0 U	μ g/L
	Styrene	1.0 U	1.0 U	μg/L
	Bromoform	1.0 U	1.0 U	μg/L
	Isopropylbenzene	13	1.0 U	μg/L
(E252)	1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
eleccio.	Bromobenzene	1.0 U / P P P P E E E E E E	1.0 U	μg/L
	1,2,3-Trichlorobenzene	1.0 υ	1.0 U	μg/L
	n-Propylbenzene	25	1.0 U	μg/L
	2-Chlorotoluene	1.0 U	1.0 U	μg/L
	1,3,5-Trimethylbenzene	1.0 U	1.0 U	μg/L
	4-Chlorotoluene	1.0 U	1.0 Ü	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 19 OF 65

Parent of the second	EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	TMW-2	TMW-3	Units
			,	
	tert-Butylbenzene	2.6	1.0 U	μg/L
	1,2,4-Trimethylbenzene	1.0 U	1.0 U	μ g/L
	s-Butylbenzene	15	1.0 U	μ g/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	$\mu { t g}/{ t L}$
	p-Isopropyltoluene	1.0 U	1.0 U	μg/L
27	1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
75	n-Butylbenzene	10	1.0 U	μ g/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	$\mu { t g}/{ t L}$
	1,2,4-Trichlorobenzene	1.0 U	1.0 U	μ g/L
	Hexachlorobutadiene	1.0 U	1.0 U	μg/L
	Naphthalene	120	8.5	μg/L
	1,2,3-Trichloropropane	1.0 U	1.0 U	μ g/L
20	Bromochloromethane	1.0 U	1.0 U	μ g/L
		0 DEGOTT		
100	Surrogate:	% RECOV	% RECOV	LIMITS
	Dibromofluoromethane	94	88	38-143
	D8-Toluene	104	99	78-126
	Bromofluorobenzene	102	92	72-132
	Date Analyzed	05/01/00	05/01/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 20 OF 65

	EPA METHOD 8270 -			
	SEMIVOLATILE ORGANICS	TMW-2	TMW-3	Units
			,	
	Acenaphthene	10 U	10 U	$\mu exttt{g/L}$
	Acenaphthylene	10 U	10 U	μg/L
C 25	Anthracene	10 U	10 U	μg/L
	Benzidine	10 U	10 U	μ g/L
	Benzo(a) anthracene	10 U	. 10 U	μ g/L
	Benzo(b) fluoranthene	10 U	10 U	$\mu g/L$
	Benzo(k) fluoranthene	10 U	10 U	μ g/L
	Benzo(g,h,i)perylene	10 U	10 U	μ g/L
	Benzo(a) pyrene	10 U	10 U	μg/L
WASE!	Benzylbutyl phthalate	10 U	10 U	μg/L
#5055	Bis (2-chloroethoxy) methane	10 U	10 U	$\mu g/L$
	Bis(2-chloroethyl)ether	10 U	10 U	μ g/L
	Bis(2-chloroisopropyl)ether	10 U	10 U	μ g/L
	Bis(2-ethylhexyl)phthalate	10 U	10 U	μg/L
1	4-Bromophenylphenyl ether	10 U	10 U	μg/L
j	2-Chloronaphthalene	10 U	10 U	μg/L
	4-Chlorophenyl phenyl ether	10 U	10 U	μg/L
6 550	Chrysene	10 U	10 U	μg/L
	Dibenzo(a,h)anthracene	10 U	10 U	$\mu { t g}/{ t L}$
.	1,2-Dichlorobenzene	10 U	10 U	μ g/L
	1,3-Dichlorobenzene	10 U	10 U	μg/L
	1,4-Dichlorobenzene	10 U	10 U	μg/L
	3,3'-Dichlorobenzidine	20 U	20 U	μg/L
	Diethyl phthalate	10 U	10 U	μ g/L
630	Dimethyl phthalate	10 U	10 U	μ g/L
	Di-n-butyl phthalate	10 U	10 U	μg/L
Cass	Di-n-octyl phthalate	10 U	10 U	μ g/L
ecoto.	2,4-Dinitrotoluene	10 U	10 U	μg/L
1	2,6-Dinitrotoluene	10 U	. 10 U	μg/L
		i i i i i i i i i i i i i i i i i i i		

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 21 OF 65

	EPA METHOD 8270 (cont.) - SEMIVOLATILE ORGANICS	TMW	<u>-2</u>	<u>TMW-3</u>	Units
	Fluoranthene Fluorene	10		10 U 10 U	μg/L μg/L
	Hexachlorobenzene	10	· · · · · · · · · · · · · · · · · · ·	10 U	μg/L
	Hexachlorobutadiene	10	Ū	10 U	μg/L
	Hexachlorocyclopentadiene	. 10	$_{f U}$ $^{\prime}$ $_{f V}$	10 U	μg/L
	Hexachloroethane	10	U	10 U	μg/L
	Indeno(1,2,3-cd)pyrene	. 10	U	10 U	μ g/L
	Isophorone	10	U	10 U	μ g/L
	1-Methylnaphthalene	46	•	10 U	μg/L
and	2-Methylnaphthalene	45		10 U	$\mu g/L$
	Naphthalene	42		10 U	μg/L
	Nitrobenzene	10	U	10 U	μ g/L
ess .	N-Nitrosodimethylamine	10	U	10 U	μg/L
electrics.	N-Nitrosodi-n-propylamine	10		10 U	μg/L
1	N-Nitrosodiphenylamine	10		10 U	μg/L
	Phenanthrene	10		10 U	
	Pyrene	10		10 U	
	1,2,4-Trichlorobenzene	10		10 U	
	Benzyl Alcohol		and the second s	10 U	
emigrap.	Benzoic Acid	10		10 U	μg/L
Ø800	4-Chloroaniline		Ū	10 U	μg/L
	2-Nitroaniline		Ū	10 U	μg/L
.	3-Nitroaniline	`10		10 U	
	4-Nitroaniline	10		10 U	μg/L
.	Dibenzofuran	10	U	10 U	μg/Li

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 22 OF 65

	SEMIVOLATILE ORGANICS	<u>TMW-2</u>	<u>TMW-3</u>	Units
	Pyridine 4-Chloro-3-methylphenol	10 U 10 U	10 U 10 U	μg/L μg/L
	2-Chlorophenol	10 U	10 U	μ g/L
BBs	2,4-Dichlorophenol	10 Ü	10 U	μg/L
	2,4-Dimethylphenol	10 U	10 U	μg/L
	2,4-Dinitrophenol	50 U	50 U 30 U	μg/L
20	2-Methyl-4,6-dinitrophenol	30 U 10 U	10 U	μg/L μg/L
	2-Nitrophenol 4-Nitrophenol	10 U	10 U	μg/L
	Pentachlorophenol	10 U	10 U	μg/L
Th.	Phenol	10 U	10 U	μg/L
	2,4,6-Trichlorophenol	10 U	10 U	μg/L
	2-Methylphenol	10 U	10 U	μg/L
	3 & 4-Methylphenol	10 U	10 U	μg/L
	2,4,5-Trichlorophenol	10 U	10 U	$\mu g/L$
		% RECOV	% RECOV	LIMITS
white "	Surrogate: Nitrobenzene -D5	36	46	30-106
	2-Fluorobiphenyl	50	57	38-107
	Terphenyl -D14	80	92	29-131
200	Phenol -D5	27	34	12-87
	2-Fluorophenol	32, 31 (1) (1)	45	19-115
	2,4,6-Tribromophenol	89	80	35-126
Sing.	Date Extracted	04/28/00	04/28/00 04/29/00	
	Date Analyzed	04/28/00	04/29/00	Strain Strain

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 23 OF 65

	TOTAL METALS	METHOD	<u>TMW-2</u>	<u>TMW-3</u>	Units
	Arsenic Date Analyzed	200.7	0.010 U 04/26/00	0.010 U 04/26/00	mg/L
	Barium Date Analyzed	200.7	0.10 U 04/26/00	0.10 U 04/26/00	mg/L
	Cadmium Date Analyzed	200.7	0.0010 U 04/26/00	0.0010 I 04/26/00	mg/L
	Chromium Date Analyzed	200.7	0.010 U 04/26/00	0.010 U 04/26/00	mg/L
	Lead Date Analyzed	200.7	0.0050 U 04/26/00	0.0050 U 04/26/00	mg/L
j	Mercury Date Analyzed	245.1	0.00020 U 04/27/00	0.00020 U 04/27/00	mg/L
	Selenium Date Analyzed	200.7	0.010 U 04/26/00	0.010 U 04/26/00	mg/L
	Silver Date Analyzed	200.7	0.010 U 04/26/00	0.010 U 04/26/00	mg/L
	EPA METHOD FLPRO - PETROL. RESIDUAL OR	<u>G.</u>	<u>TMW-2</u>	<u>TMW-3</u>	<u>Units</u>
L	Hydrocarbons (C8-C4	0)	3.2	0.20 U	mg/L
	Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 108 05/01/00 05/02/00	% RECOV 90 05/01/00 05/01/00	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected, value is between the Mothed Detected.

I = Analyte detected; value is between the Method Detection Level (MDL)
and the Practical Quantitation Level (PQL):

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 24 OF 65

	EPA METHOD 8260 - VOLATILE ORGANICS		<u>CS-1</u>			<u>CS-2</u>		<u>Units</u>	
	Dichlorodifluoromethane		3.3 U	D2		2.9 U	D3	μ g/Kg	
	Chloromethane		1.6 U	D2		1.5 U	D3	μg/Kg	
	Vinyl Chloride		1.6 U	D2		1.5 U	D3	μg/Kg	
	Bromomethane		1.0 U	D2		1.0 U	D3	μg/Kg	
	Chloroethane		1.0 U	D2		1.0 U	D3	μg/Kg	
	Trichlorofluoromethane		1.0 U	D2		1.0 U	D3 .	μg/Kg	
elesenes.	1,1-Dichloroethene		1.6 U	D2		1.5 U	D3 .	μg/Kg	
	Acetone		32 U	D2		29 U	D3	μg/Kg	
	Carbon Disulfide		32 U	D2		29 U	D3 ·	μg/Kg	
	Methylene Chloride		8.0 U	D2		7.0 U	D3	μg/Kg	
	t-1,2-Dichloroethene		1.6 U	D2		1.5 U	D3	μg/Kg	
	Methyl tert-butyl ether		1.6 U	D2		1.5 U	D3	μg/Kg	
BERGE .	1,1-Dichloroethane		1.6 U	D2		1.5 U	D3	μg/Kg	
en e	2,2-Dichloropropane		4.0 U	D2 -		3.0 U	D3	μg/Kg	
1	c-1,2-Dichloroethene		1.6 U	D2		1.5 U	D3	μg/Kg	
	2-Butanone		33 U	D2		29 U	D3	μg/Kg	
	Chloroform		1.6 U	D2			D3	μg/Kg	
	1,1,1-Trichloroethane		1.6 U	D2 .		1.5 U	D3	μg/Kg	
	Carbon tetrachloride		1.6 U	D2		1.5 U	D3	μg/Kg	
	1,1-Dichloropropene		1.6 U	D2	. · · · · · .	1.5 U	D3	μg/Kg	
	Benzene			D2	y * N	1.5 U	D3	μg/Kg	
	1,2-Dichloroethane		1.6 U	D2		1.5 U	D3	μg/Kg	
	Trichloroethene			D2		1.5 U	D3	μg/Kg	
	1,2-Dichloropropane		1.6 U	D2	*	1.5 U		μg/Kg	
	Dibromomethane		1.6 U	D2		1.5 U	D3 .	μg/Kg	
	Bromodichloromethane	S 25	1.6 U	D2		1.5 U	D3	μg/Kg	. /

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:1.33 dilution.

D3 = Analyte value determined from a 1:1.35 dilution.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 25 OF 65

	EPA METHOD 8260 (cont.) -		*	
	VOLATILE ORGANICS	CS-1	CS-2	Units
	2-Chloroethyl vinyl ether	10 U D2	8.0 U D3	μg/Kg
	c-1,3-Dichloropropene	1.6 U D2	1.5 U D3	μg/Kg
	4-Methyl-2-pentanone	32 U D2	29 U D3	μ g/Kg
	Toluene	1.6 U D2	1.5 U D3	μ g/Kg
	t-1,3-Dichloropropene	1.6 U D2	1.5 U D3	μ g/Kg
	1,1,2-Trichloroethane	1.6 U D2	1.5 U D3	μ g/Kg
	Tetrachloroethene	5.0 U D2	4.0 U D3	μg/Kg
	1,3-Dichloropropane	1.6 U D2	1.5 U D3	μg/Kg
	2-Hexanone	32 U D2	29 U D3	$\mu g/Kg$
	Dibromochloromethane	1.6 U D2	1.5 U D3	μg/Kg
	1,2-Dibromoethane	1.6 U D2	1.5 U D3	μ g/Kg
	Chlorobenzene	1.6 U D2	1.5 U D3	μg/Kg
2,5	1,1,1,2-Tetrachloroethane	1.6 U D2	1.5 U D3	μ g/Kg
terriori.	Ethylbenzene	1.6 U D2	1.5 U D3	μg/Kg
•	m-Xylene & p-Xylene	3.3 U D2	2.9 U D3	μg/Kg
	o-Xylene	1.6 U D2	1.5 U D3	μg/Kg
	Styrene	1.6 U D2	1.5 U D3	μg/Kg
	Bromoform	1.6 U D2	1.5 U D3	μg/Kg
	Isopropylbenzene	1.6 U D2	1.5 U D3	μg/Kg
5600	1,1,2,2-Tetrachloroethane	1.6 U D2	1.5 U D3	μg/Kg
9886 8886	Bromobenzene	1.6 U D2	1.5 U D3	μg/Kg
	1,2,3-Trichlorobenzene	1.6 U D2	1.5 U D3	μg/Kg
	n-Propylbenzene	1.6 U D2	1.5 U D3	μg/Kg
	2-Chlorotoluene	1.6 U D2	1.5 U D3	μg/Kg
	1,3,5-Trimethylbenzene	1.6 U D2	1.5 U D3	μ g/Kg
	4-Chlorotoluene	1.6 U D2	1.5 U D3	μg/Kg

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:1.33 dilution.

D3 = Analyte value determined from a 1:1.35 dilution.

REPORT # : JAX10968 **DATE REPORTED:** May 3, 2000 **REFERENCE:** 2007

PROJECT NAME : Mayport Naval Station

PAGE 26 OF 65

	EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	<u>CS-1</u>	<u>CS-2</u>	Units
	tert-Butylbenzene 1,2,4-Trimethylbenzene s-Butylbenzene 1,3-Dichlorobenzene p-Isopropyltoluene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichloropropane Bromochloromethane	1.6 U D2	1.5 U D3	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
1	Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	% RECOV 89 100 99 04/30/00	% RECOV 88 93 97 04/30/00	LIMITS 59-143 60-115 55-144

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:1.33 dilution.

D3 = Analyte value determined from a 1:1.35 dilution.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 27 OF 65

	EPA METHOD 8270 -			
	SEMIVOLATILE ORGANICS	CS-1	CS-2	Units
		***************************************	-	
	Acenaphthene	400 U	350 U	μ g/Kg
	Acenaphthylene	400 U	350 U	μg/Kg
	Anthracene	400 U	350 U	μg/Kg
-0.00000	Benzidine	400 U	350 U	μg/Kg
	Benzo (a) anthracene	400 U	350 U	μ g/Kg
	Benzo(b) fluoranthene	400 U	350 U	μg/Kg
	Benzo(k) fluoranthene	400 U	350 U	μg/Kg
	Benzo(g,h,i)perylene	400 U	350 U	μg/Kg
	Benzo(a) pyrene	400 U	350 U	μg/Kg
*CO.	Benzylbutyl phthalate	400 U	350 U	μg/Kg
#00000h	Bis (2-chloroethoxy) methane	400 U	-350 U	μ g/Kg
	Bis(2-chloroethyl)ether	400 U	350 Ü	μg/Kg
	Bis(2-chloroisopropyl)ether	400 U	350 U	μg/Kg
	Bis(2-ethylhexyl)phthalate	400 U	350 U	μg/Kg
1	4-Bromophenylphenyl ether	400 U	350 U	μg/Kg
1	2-Chloronaphthalene	400 U	350 U	μg/Kg
#00000M	4-Chlorophenyl phenyl ether	400 U	350 U	μg/Kg
6399	Chrysene	400 U	350 U	μg/Kg
	Dibenzo(a,h)anthracene	400 U	350 U	μg/Kg
	1,2-Dichlorobenzene	400 U	350 U	μg/Kg
	1,3-Dichlorobenzene	400 U	350 U	μg/Kg
	1,4-Dichlorobenzene	400 U	350 U	μg/Kg
	3,3'-Dichlorobenzidine	800 U	700 U	μ g/Kg
	Diethyl phthalate	400 U	350 U	μg/Kg
ren	Dimethyl phthalate	400 U	350 U	μ g/Kg
	Di-n-butyl phthalate	400 U	350 U	μg/Kg
£225	Di-n-octyl phthalate	400 U	350 U	μg/Kg
gover	2,4-Dinitrotoluene	400 U	350 U	μg/Kg
	2,6-Dinitrotoluene	400 U	350 U	μg/Kg

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 28 OF 65

	SEMIVOLATILE ORGANICS	CS-	1			CS-2	<u>2</u>	Un	<u>its</u>
	Fluoranthene	400				350 350			/Kg
	Fluorene	400				350			/Kg
	Hexachlorobenzene	400			÷.				/Kg
	Hexachlorobutadiene	400				350	U ·		/Kg
	Hexachlorocyclopentadiene	400					-	μg	/Kg
K66864	Hexachloroethane	400				350			/Kg
60505000	Indeno(1,2,3-cd)pyrene	400				350			/Kg
	Isophorone	400				350			/Kg
	1-Methylnaphthalene	400				350			/Kg
	2-Methylnaphthalene	400				350			/Kg
	Naphthalene	400				350			/Kg
	Nitrobenzene	400				350			/Kg
(Carrier)	N-Nitrosodimethylamine	400				350			/Kg
AND DOOR	N-Nitrosodi-n-propylamine	400				350			/Kg
1	N-Nitrosodiphenylamine	400				350		μg	/Kg
	Phenanthrene	400	U	* * * * * * * * * * * * * * * * * * * *		350			/Kg
1	Pyrene	400	U			3.50			/Kg
	1,2,4-Trichlorobenzene	400				350			/Kg
	Benzyl Alcohol	400	U			350			/Kg
	Benzoic Acid	400	U			350			/Kg
#200000	4-Chloroaniline	400	U			350		μg	/Kg
	2-Nitroaniline	400	U			350	U	μg	/Kg
	3-Nitroaniline	400	U			350	U		/Kg
	4-Nitroaniline	400	U			350	U	μg	/Kg
	Dibenzofuran	400	Ū	•		3.50	U , '	μд	/Kg
					- T. J				

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 29 OF 65

	EPA METHOD 8270 (cont.) - SEMIVOLATILE ORGANICS	<u>CS-1</u>	<u>CS-2</u>	Units
	Pyridine 4-Chloro-3-methylphenol 2-Chlorophenol	400 U 400 U 400 U	350 U 350 U 350 U	μg/Kg μg/Kg μg/Kg
	2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol	400 U 400 U 2000 U	350 U 350 U 1800 U 1000 U	μg/Kg μg/Kg μg/Kg μg/Kg
	2-Methyl-4,6-dinitrophenol 2-Nitrophenol 4-Nitrophenol	1200 U 400 U 400 U 400 U	350 U 350 U 350 U	μg/Kg μg/Kg μg/Kg μg/Kg
	Pentachlorophenol Phenol 2,4,6-Trichlorophenol 2-Methylphenol	400 U 400 U 400 U	350 U 350 U 350 U	μg/Kg μg/Kg μg/Kg
1	3 & 4-Methylphenol 2,4,5-Trichlorophenol	400 U 400 U	350 U 350 U	μg/Kg μg/Kg
	Surrogate: Nitrobenzene -D5 2-Fluorobiphenyl	% RECOV 64 72 97	% RECOV 66 80 106	LIMITS 35-112 42-111 40-124
	Surrogate: Nitrobenzene -D5 2-Fluorobiphenyl Terphenyl -D14 Phenol -D5 2-Fluorophenol 2,4,6-Tribromophenol	64 72 97 69 68 66	66 80 106 81 81 71	35-112 42-111
	Surrogate: Nitrobenzene -D5 2-Fluorobiphenyl Terphenyl -D14 Phenol -D5 2-Fluorophenol	64 72 97 69 68	66 80 106 81 81	35-112 42-111 40-124 20-120 29-130
	Surrogate: Nitrobenzene -D5 2-Fluorobiphenyl Terphenyl -D14 Phenol -D5 2-Fluorophenol 2,4,6-Tribromophenol Date Extracted	64 72 97 69 68 66 04/27/00	66 80 106 81 81 71 04/27/00	35-112 42-111 40-124 20-120 29-130

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 30 OF 65

	TOTAL METALS	METHOD	<u>CS-1</u>	<u>CS-2</u>	Units
	Arsenic Date Analyzed	6010	1.0 I 04/26/00	1.5 I 04/26/00	mg/Kg
	Barium Date Analyzed	6010	24 U 04/26/00	21 U 04/26/00	mg/Kg
	Cadmium Date Analyzed	6010	1.0 U 04/26/00	1.0 U 04/26/00	mg/Kg
	Chromium Date Analyzed	6010	1.0 04/26/00	1.0 U 04/26/00	mg/Kg
The same of the sa	Lead Date Analyzed	6010	4.4 04/26/00	1.0 U 04/26/00	mg/Kg
j	Mercury Date Analyzed	7471	0.010 U 04/28/00	0.010 U 04/28/00	mg/Kg
	Selenium Date Analyzed	6010	2.0 U 04/26/00	2.0 U 04/26/00	mg/Kg
	Silver Date Analyzed	6010	2.0 U 04/26/00	2.0 U 04/26/00	mg/Kg
	EPA METHOD FLPRO - PETROL. RESIDUAL O	RG.	<u>CS-1</u>	<u>cs-2</u>	Units
	Hydrocarbons (C8-C	40)	8.0 U	7.0 U	mg/Kg
	Surrogate: o-Terphenyl		% RECOV 62	% RECOV 68	<u>LIMITS</u> 51-148
	Date Extracted Date Analyzed		04/28/00 04/28/00	04/28/00 04/28/00	

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

REPORT # : JAX10968 DATE REPORTED: May 3, 2000
REFERENCE: 2007
PROJECT NAME: Mayport Naval Station

PAGE 31 OF 65

RESULTS OF ANALYSIS

	EPA METHOD 8260 - VOLATILE ORGANICS	LAB BLANK	<u>Units</u>
	Dichlorodifluoromethane Chloromethane	2.0 U 1.0 U	μg/L μg/L
	Vinyl Chloride	1.0 U 2.0 U	μg/L
	Bromomethane Chloroethane	2.0 U	μg/L μg/L
	Trichlorofluoromethane	1.0 U	μg/L
	1,1-Dichloroethene	1.0 U	μg/L
	Acetone	50 U	μg/L
	Carbon Disulfide	50 U	μg/L
	Methylene Chloride	5.0 U	μg/L
	t-1,2-Dichloroethene	1.0 U 1.0 U	μg/L μg/L
	Methyl tert-butyl ether 1,1-Dichloroethane	1.0 U	μg/L μg/L
	2,2-Dichloropropane	2.0 U	μg/L
	c-1,2-Dichloroethene	1.0 U	μg/L
j	2-Butanone	20 U	μg/L
40.00	Chloroform	1.0 U	μg/L
630	1,1,1-Trichloroethane	1.0 U	μg/L
	Carbon tetrachloride	1.0 U	μg/L
*62029	1,1-Dichloropropene	1.0 U	μg/L
emi.	Benzene	1.0 U 1.0 U	μg/L
	1,2-Dichloroethane Trichloroethene	1.0 U	μg/L μg/L
	1,2-Dichloropropane	1.0 U	μg/L
 #2000	Dibromomethane	1.0 U	μg/L
	Bromodichloromethane	1.0 Ŭ	μg/L
			. –

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 32 OF 65

RESULTS OF ANALYSIS

	EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	<u>Units</u>
	2-Chloroethyl vinyl ether	6.0 U	μg/L
	c-1,3-Dichloropropene	1.0 U	μg/L
	4-Methyl-2-pentanone Toluene	20 U	$\mu g/L$
	t-1,3-Dichloropropene	1.0 U	μ g/L
	1,1,2-Trichloroethane	1.0 U 1.0 U	μg/L
	Tetrachloroethene	3.0 U	μg/L
	1,3-Dichloropropane	1.0 U	μg/L
	2-Hexanone	20 U	μg/L
	Dibromochloromethane	1.0 U	μg/L μg/L
	1,2-Dibromoethane	1.0 U	μg/L
	Chlorobenzene	1.0 U	μg/L
	1,1,1,2-Tetrachloroethane	1.0 U	μg/L
	Ethylbenzene	1.0 U	μg/L
1	m-Xylene & p-Xylene o-Xylene	2.0 U	μg/L
- Care	Styrene	1.0 U	μg/L
	Bromoform	1.0 U	μg/L
	Isopropylbenzene	1.0 U	μg/L
	1,1,2,2-Tetrachloroethane	1.0 U	μg/L
1000	Bromobenzene	$ar{f 1.0}$ $ar{f U}$	μg/L μg/L
	1,2,3-Trichlorobenzene	1.0 U	μg/L μg/L
	n-Propylbenzene	1.0 U	μg/L
939%.	2-Chlorotoluene	1'.0 U	μg/L
	1,3,5-Trimethylbenzene	1.0 U	μg/L
æ.	4-Chlorotoluene	1.0 U	μg/L

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 33 OF 65

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	Units
tert-Butylbenzene 1,2,4-Trimethylbenzene s-Butylbenzene	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
1,3-Dichlorobenzene p-Isopropyltoluene 1,4-Dichlorobenzene	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene	1.0 U 1.0 U 1.0 U	μα/Γ μα/Γ μα/Γ
Hexachlorobutadiene Naphthalene 1,2,3-Trichloropropane	1.0 U 1.0 U 2.0 U 1.0 U	μg/L μg/L μg/L
Bromochloromethane Surrogate:	1.0 U 1.0 U % RECOV	μg/L μg/L
Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	90 93 100 04/29/00	38-143 78-126 72-132

REPORT # : JAX10968 DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 34 OF 65

	EPA METHOD 8260 - VOLATILE ORGANICS	A .	CS-3		LA	B BLANK	Units
	Dichlorodifluoromethane Chloromethane Vinyl Chloride		4.7 U 2.4 U 2.4 U	D4 D4 D4		2.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
	Bromomethane Chloroethane Trichlorofluoromethane		2.0 U 2.0 U 2.0 U	D4 D4 D4		1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
	1,1-Dichloroethene Acetone Carbon Disulfide Methylene Chloride		2.4 U 47 U 47 U 11 U	D4 D4 D4 D4		1.0 U 24 20 U 8.0 I	μg/Kg μg/Kg μg/Kg μg/Kg
	t-1,2-Dichloroethene Methyl tert-butyl ether 1,1-Dichloroethane	. •	2.4 U 2.4 U 2.4 U	D4 D4 D4		1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
]	2,2-Dichloropropane c-1,2-Dichloroethene 2-Butanone		5.0 U 2.4 U 47 U	D4 D4 D4		2.0 U 1.0 U 20 U	μg/Kg μg/Kg μg/Kg
	Chloroform 1,1,1-Trichloroethane Carbon tetrachloride 1,1-Dichloropropene		2.4 U 2.4 U 2.4 U 2.4 U	D4 D4 D4 D4	•	1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg
	Benzene 1,2-Dichloroethane Trichloroethene		2.4 U 2.4 U 2.4 U	D4 D4 D4		1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
	1,2-Dichloropropane Dibromomethane Bromodichloromethane		2.4 U 2.4 U 2.4 U	D4 D4 D4	•	1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg

U = Compound was analyzed for but not detected to the level shown.
I = Analyte detected; value is between the Method Detection Level (MDL)
and the Practical Quantitation Level (PQL).

D4 = Analyte value determined from a 1:2.29 dilution.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 35 OF 65

	EPA METHOD 8260 (cont.) -	•			
	VOLATILE ORGANICS	<u>CS-3</u>		LAB BLANK	Units
	2-Chloroethyl vinyl ether	14 U D	4	6.0 U	μg/Kg
	c-1,3-Dichloropropene	2.4 U D	4	1.0 U	μg/Kg
4 00000	4-Methyl-2-pentanone	47 U D	4	20 U	$\mu g/Kg$
Access	Toluene	2.4 U D	4	1.0 U	μg/Kg
	t-1,3-Dichloropropene	2.4 U D	4	1.0 U	μg/Kg
	1,1,2-Trichloroethane	2.4 U D	4	1.0 U	μg/Kg
	Tetrachloroethene	7.0 U D	4	3.0 U	μ g/Kg
	1,3-Dichloropropane	2.4 U D		1.0 U	μg/Kg
	2-Hexanone	47 U D	4	20 U	μg/Kg
	Dibromochloromethane	2.4 U D	4	1.0 U	μ g/Kg
(1,2-Dibromoethane	2.4 U D		1.0 U	μg/Kg
	Chlorobenzene	2.4 U D		1.0 U	μg/Kg
	1,1,1,2-Tetrachloroethane	2.4 U D		1.0 U	μg/Kg
distribu	Ethylbenzene	2.4 U D		1.0 U	μg/Kg
1	m-Xylene & p-Xylene	4.7 U D		2.0 U	μg/Kg
	o-Xylene	2.4 U D		1.0 U	μg/Kg
	Styrene	2.4 U D	The second secon	1.0 U	μg/Kg
	Bromoform	2.4 U D	- T	1.0 U	μg/Kg
	Isopropylbenzene	2.4 U D	4.	1.0 U	μg/Kg
ections	1,1,2,2-Tetrachloroethane	2.4 U D		1.0 U	μg/Kg
6	Bromobenzene		4	1.0 U	μg/Kg
	1,2,3-Trichlorobenzene	2.4 U D		1.0 U	μg/Kg
	n-Propylbenzene	2.4 U D		1.0 U	μg/Kg
	2-Chlorotoluene	2.4 U D		1.0 U	μg/Kg
	1,3,5-Trimethylbenzene	2.4 U D		1.0 U	μg/Kg
	4-Chlorotoluene	2.4 U D	4	1.0 U	μg/Kg

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:2.29 dilution.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 36 OF 65

L	EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	<u>CS-3</u>	LAB BLANK	Units
	tert-Butylbenzene 1,2,4-Trimethylbenzene s-Butylbenzene 1,3-Dichlorobenzene p-Isopropyltoluene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichloropropane Bromochloromethane	2.4 U D4	1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
	Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	% RECOV 89 98 100 04/30/00	% RECOV 96 108 108 04/28/00	LIMITS 59-143 60-115 55-144

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:2.29 dilution.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 37 OF 65

RESULTS OF ANALYSIS

	EPA METHOD 8270 - SEMIVOLATILE ORGANICS	LAB BLANK		Units
	Acenaphthene	10 U		μg/L
	Acenaphthylene Anthracene	 10 U		μg/L
	Benzidine	10 U	•	μg/L
	Benzo(a) anthracene	10 U 10 U		μg/L
	Benzo (b) fluoranthene	10 U	•	μg/L
	Benzo(k) fluoranthene	10 U		μg/L
1	Benzo(g,h,i)perylene	10 U		μg/L
	Benzo(a) pyrene	10 U		μg/L
Carr.	Benzylbutyl phthalate	10 U		μg/L
entin	Bis (2-chloroethoxy) methane	10 U		μg/L
	Bis (2-chloroethyl) ether	10 U		μg/L μg/L
	Bis(2-chloroisopropyl)ether	10 U		μg/L
	Bis (2-ethylhexyl) phthalate	10 U		μg/L
]	4-Bromophenylphenyl ether	10 U		μg/L
j	2-Chloronaphthalene	10 U		μg/L
	4-Chlorophenyl phenyl ether	10 U		μg/L
	Chrysene	10 U		μg/L
	Dibenzo(a,h)anthracene	10 U		μg/L
E	1,2-Dichlorobenzene	10 U		μg/L
etter.	1,3-Dichlorobenzene	10 U		μg/L
	1,4-Dichlorobenzene	10 U		μg/L
	3,3'-Dichlorobenzidine	20 U		μg/L
	Diethyl phthalate	10 U		μg/L
	Dimethyl phthalate	10 U		μg/L
	Di-n-butyl phthalate	10 U		μg/L
	Di-n-octyl phthalate	10 U		μg/L
(6)	2,4-Dinitrotoluene	10 U		μg/L
	2,6-Dinitrotoluene	10 U		μg/L
\$45.000				

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 38 OF 65

RESULTS OF ANALYSIS

L	SEMIVOLATILE ORGANICS	LAB BLANK		Units
	Fluoranthene	10 U		μg/L
	Fluorene	10 U		μg/L
	Hexachlorobenzene	10 U		μg/L
	Hexachlorobutadiene	10 U	• • • • • • • • • • • • • • • • • • • •	μg/L
	Hexachlorocyclopentadiene	10 U		μg/L
	Hexachloroethane	10 U		μg/L
	Indeno(1,2,3-cd)pyrene	10 U		μg/L
	Isophorone	10 U		μg/L
	1-Methylnaphthalene	10 U		μg/L
	2-Methylnaphthalene	10 U		μg/L
(3)	Naphthalene	10 U		μg/L
	Nitrobenzene	10 U		μg/L
6332	N-Nitrosodimethylamine	10 U		μg/L
etros.	N-Nitrosodi-n-propylamine	10 U		$\mu g/L$
1	N-Nitrosodiphenylamine	10 U		μg/L
j	Phenanthrene	10 U		μg/L
	Pyrene	10 U		μg/L
	1,2,4-Trichlorobenzene	10 U		μg/L
	Benzyl Alcohol	10 U	Taket T	μg/L
-	Benzoic Acid	10 U		μg/L
6000	4-Chloroaniline	10 U		μg/L
	2-Nitroaniline	10 U	<u>, </u>	μg/L
	3-Nitroaniline	10 U		μg/L
	4-Nitroaniline	10 U		μg/L
	Dibenzofuran	10 U	· · · · · · · · · · · · · · · · · · ·	μg/L

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 39 OF 65

EPA METHOD 8270 (cont.) - SEMIVOLATILE ORGANICS	LAB BLANK	Units
Pyridine 4-Chloro-3-methylphenol 2-Chlorophenol	10 U 10 U 10 U	μg/L μg/L μg/L
2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2-Methyl-4,6-dinitrophenol	10 U 10 U 50 U	μg/L μg/L μg/L
2-Methyl-4,6-difftrophenol 2-Nitrophenol 4-Nitrophenol Pentachlorophenol	30 U 10 U 10 U 10 U	μg/L μg/L μg/L
Phenol 2,4,6-Trichlorophenol 2-Methylphenol	10 U 10 U 10 U	μg/L μg/L μg/L μg/L
3 & 4-Methylphenol 2,4,5-Trichlorophenol	10 U 10 U	μg/L μg/L
Surrogate: Nitrobenzene -D5 2-Fluorobiphenyl Terphenyl -D14	* RECOV 70 72 #186	LIMITS 30-106 38-107 29-131
Phenol -D5 2-Fluorophenol 2,4,6-Tribromophenol Date Extracted	# 60 76 91 04/28/00	12-87 19-115 35-126
Date Analyzed	04/28/00	

^{# =} surrogate recovery outside of laboratory established limits. NR= Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000

REFERENCE : 2007
PROJECT NAME : Mayport Naval Station

PAGE 40 OF 65

	EPA METHOD 8270 -				
	SEMIVOLATILE ORGANICS	<u>CS-3</u>	•	LAB BLANK	Units
	Acenaphthene	340 U		330 U	μg/Kg
	Acenaphthylene	340 U		330 U	μg/Kg
10000	Anthracene	340 U		330 U ,	μ g/Kg
0000mm	Benzidine	340 U		330 U	μg/Kg
	Benzo(a)anthracene	340 U	t de la companya de	330 U	μg/Kg
	Benzo(b) fluoranthene	340 U		330 U	μ g/Kg
	Benzo(k) fluoranthene	340 U		330 · U	μ g/Kg
	Benzo(g,h,i)perylene	340 U		330 U	$\mu g/Kg$
	Benzo(a) pyrene	340 U		330 U	μg/Kg
	Benzylbutyl phthalate	340 U		330 U	μg/Kg
etros.	Bis(2-chloroethoxy)methane	340 U		330 U	μg/Kg
	Bis(2-chloroethyl)ether	340 U		330 U	μ g/Kg
	Bis(2-chloroisopropyl)ether	340 U		330 U	μg/Kg
	Bis(2-ethylhexyl)phthalate	340 U		330 U	μg/Kg
	4-Bromophenylphenyl ether	340 U		330 U	μg/Kg
1	2-Chloronaphthalene	340 U		330 U	μg/Kg
*****	4-Chlorophenyl phenyl ether	340 U		(3,30 Ψ	μg/Kg
620	Chrysene	340 U		330 U	μg/Kg
	Dibenzo(a,h)anthracene	340 U		330 U	μg/Kg
6	1,2-Dichlorobenzene	340 U		330 U	μg/Kg
	1,3-Dichlorobenzene	340 U		330 U	μg/Kg
	1,4-Dichlorobenzene	340 U		330 U	μ g/Kg
	3,3'-Dichlorobenzidine	680 U		660 U	μg/Kg
	Diethyl phthalate	340 U		330 U	μg/Kg
	Dimethyl phthalate	340 U		330 U	μg/Kg
	Di-n-butyl phthalate	340 U		330 U	μg/Kg
Washing !	Di-n-octyl phthalate	340 U		330 U	μg/Kg
£0779	2,4-Dinitrotoluene	340 U		330 U	μg/Kg
Sales and Sales	2,6-Dinitrotoluene	340 U		330 U	$\mu g/Kg$

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 41 OF 65

	EPA METHOD 8270 (cont.) -			
33,0	SEMIVOLATILE ORGANICS	<u>CS-3</u>	LAB BLANK	Units
	Fluoranthene	340 U	330 U	μg/Kg
	Fluorene	340 U	330 U	μ g/Kg
	Hexachlorobenzene	340 U	330 U	μg/Kg
	Hexachlorobutadiene	340 U	330 U	μg/Kg
	Hexachlorocyclopentadiene	340 U	330 U	μg/Kg
	Hexachloroethane	340 U	330 U	μg/Kg
	Indeno(1,2,3-cd)pyrene	340 U	330 U	μg/Kg
	Isophorone	340 U	330 U	μg/Kg
	1-Methylnaphthalene	340 U	330 U	μg/Kg
	2-Methylnaphthalene	340 U	330 U.	μg/Kg
1 129	Naphthalene	340 U	330 U	μg/Kg
	Nitrobenzene	340 U	330 U	μ g/Kg
	N-Nitrosodimethylamine	340 U	330 U	μg/Kg
	N-Nitrosodi-n-propylamine	340 U	330 U	μg/Kg
1	N-Nitrosodiphenylamine	340 U	330 U	μg/Kg
	Phenanthrene	340 U	330 U	μg/Kg
	Pyrene	340 U	330 U	μg/Kg
	1,2,4-Trichlorobenzene	340 U	330 U	μg/Kg
	Benzyl Alcohol	340 U	330 U	μg/Kg
220	Benzoic Acid	340 U	330 U	μg/Kg
ditters.	4-Chloroaniline	340 U	330 U	μg/Kg
	2-Nitroaniline	340 U	330 U	μg/Kg
	3-Nitroaniline	340 U	330 U	μg/Kg
	4-Nitroaniline	340 U	330 U	μg/Kg
	Dibenzofuran	340 U	330 U	μg/Kg

⁼ Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 42 OF 65

	EPA METHOD 8270 (cont.) - SEMIVOLATILE ORGANICS	<u>CS-3</u>	LAB BLANK	Units
	Pyridine 4-Chloro-3-methylphenol 2-Chlorophenol	340 U 340 U 340 U	330 U 330 U 330 U	μg/Kg μg/Kg μg/Kg
	2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol	340 U 340 U 1700 U	330 U 330 U 1600 U	μg/Kg μg/Kg μg/Kg
	2-Methyl-4,6-dinitrophenol 2-Nitrophenol 4-Nitrophenol	1000 U 340 U 340 U	990 U 330 U 330 U	μg/Kg μg/Kg μg/Kg
	Pentachlorophenol Phenol 2,4,6-Trichlorophenol 2-Methylphenol	340 U 340 U 340 U 340 U	330 U 330 U 330 U 330 U	μg/Kg μg/Kg μg/Kg μg/Kg
]	3 & 4-Methylphenol 2,4,5-Trichlorophenol	340 U 340 U	330 U 330 U	μg/Kg μg/Kg μg/Kg
	Surrogate: Nitrobenzene -D5 2-Fluorobiphenyl Terphenyl -D14	% RECOV 70 73 101	% RECOV 74 90 111	LIMITS 35-112 42-111 40-124
	Phenol -D5 2-Fluorophenol 2,4,6-Tribromophenol Date Extracted	86 86 65 04/27/00	90 93 70 04/27/00	20-120 29-130 35-126
	Date Analyzed	04/28/00	04/27/00	
	MISCELLANEOUS METHOD	<u>cs-3</u>	LAB BLANK	<u>Units</u>
	Percent Solids SM2540G Date Analyzed	97 04/28/00	NR	*

NR = Analysis not requested for this sample.
U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968

DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 43 OF 65

TOTAL METALS	METHOD	LAB BLANK	Units
Arsenic Date Analyzed	200.7	0.010 U 04/26/00	mg/L
Barium Date Analyzed	200.7	0.10 U 04/26/00	mg/L
Cadmium Date Analyzed	200.7	0.0010 U 04/26/00	mg/L
Chromium Date Analyzed	200.7	0.010 U 04/26/00	mg/L
Lead Date Analyzed	200.7	0.0050 U 04/26/00	mg/L

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL)
and the Practical Quantitation Level (PQL).

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 44 OF 65

RESULTS OF ANALYSIS

	TOTAL METALS	METHOD		LAB BLANK	Units
	Mercury Date Analyzed	245.1		0.00020 U 04/27/00	mg/L
	Selenium Date Analyzed	200.7		0.010 U 04/26/00	mg/L
				•	
	Silver Date Analyzed	200.7		0.010 U 04/26/00	mg/L
		•	*		
i i	EPA METHOD FLPRO -				
	PETROL. RESIDUAL OF	RG.	•	LAB BLANK	Units
	Hydrocarbons (C8-C4	10)		0.20 U	mg/L
	Surrogate: o-Terphenyl			% RECOV 76	<u>LIMITS</u> 65-140
	Date Extracted			05/01/00	03-140
	Date Analyzed			05/01/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 45 OF 65

L	TOTAL METALS	METHOD	<u>CS-3</u>	LAB BLANK	Units
	Arsenic Date Analyzed	6010	0.90 I 04/26/00	0.50 U 04/26/00	mg/Kg
	Barium Date Analyzed	6010	21 U 04/26/00	20 U 04/26/00	mg/Kg
	Cadmium Date Analyzed	6010	1.0 U 04/26/00	1.0 U 04/26/00	mg/Kg
	Lead Date Analyzed	6010	1.0 U 04/26/00	1.0 U 04/26/00	mg/Kg
	Mercury Date Analyzed	7471	0.010 U 04/28/00	0.010 U 04/28/00	mg/Kg
	Selenium Date Analyzed	6010	2.0 U 04/26/00	2.0 U 04/26/00	mg/Kg
1	Silver Date Analyzed	6010	2.0 U 04/26/00	2.0 U 04/26/00	mg/Kg
	Chromium Date Analyzed	6010	1.0 U 04/26/00	1.0 U 04/26/00	mg/Kg
	EPA METHOD FLPRO - PETROL. RESIDUAL ORG	; .	CS-3	LAB BLANK	Units
	Hydrocarbons (C8-C4)		6.8 U	6.6 U	mg/Kg
	Surrogate: o-Terphenyl		% RECOV 57	% RECOV	<u>LIMITS</u> 51-148
	Date Extracted Date Analyzed		04/28/00 04/28/00	04/28/00 04/28/00	21-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 46 OF 65

L	EPA METHOD 8260 - VOLATILE ORGANICS	LAB BLANK	LAB BLANK	Units
	Dichlorodifluoromethane	2.0 U	2.0 U	μg/L
	Chloromethane	1.0 U	1.0 U	$\mu g/L$
	Vinyl Chloride	1.0 U	1.0 U	$\mu g/L$
	Bromomethane	2.0 U	2.0 U	μ g/L
	Chloroethane	2.0 U	2.0 U	μ g/L
\$05500P	Trichlorofluoromethane	1.0 U	1.0 U	μ g/L
erson.	1,1-Dichloroethene	1.0 U	1.0 U	μ g/L
	Acetone	50 U	50 U	μ g/L
	Carbon Disulfide	50 U	50 U	μg/L
	Methylene Chloride	5.0 U	5.0 U	μg/L
	t-1,2-Dichloroethene	1.0 U	1.0 U	$\mu { t g}/{ t L}$
	Methyl tert-butyl ether	1.0 U	1.0 U	$\mu { t g}/{ t L}$
	1,1-Dichloroethane	1.0 U	1.0 U	μ g/L
	2,2-Dichloropropane	2.0 U	2.0 U	$\mu { t g}/{ t L}$
1	c-1,2-Dichloroethene	1.0 U	1.0 U	$\mu g/L$
	2-Butanone	20 U	20 U	$\mu { t g}/{ t L}$
	Chloroform	1.0 U	1.0 U	μ g/L
	1,1,1-Trichloroethane	1.0 U	1.0 U	μ g/L
	Carbon tetrachloride	1.0 U	1.0 U	μ g/L
	1,1-Dichloropropene	1.0 U	1.0 U	μ g/L
	Benzene	1.0 U	1.0 U	μg/L
	1,2-Dichloroethane	1.0 U	1.0 U	μg/L
	Trichloroethene	1.0 U	1.0 U	μg/L
70095s	1,2-Dichloropropane	1.0 U	1.0 U	μ g/L
	Dibromomethane	1.0 U	1.0 U	μg/L
and a	Bromodichloromethane	1.0 U	1.0 U	$\mu { t g}/{ t L}$

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000
REFERENCE : 2007
PROJECT NAME : Mayport Naval Station

PAGE 47 OF 65

	EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	LAB BLANK	Units
	2-Chloroethyl vinyl ether	6.0 U	6.0 U	μg/L
	c-1,3-Dichloropropene	1.0 U	1.0 U	$\mu g/L$
	4-Methyl-2-pentanone	20 U	20 U	μg/L
	Toluene	1.0 U	1.0 U	μg/L
	t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	1,1,2-Trichloroethane	1.0 U	1.0 U	$\mu g/L$
950	Tetrachloroethene	3.0 U	3.0 U	μg/L
	1,3-Dichloropropane	1.0 U	1.0 U	μg/L
	2-Hexanone	20 U	20 U	μg/L
	Dibromochloromethane	1.0 U	1.0 U	$\mu { t g}/{ t L}$
	1,2-Dibromoethane	1.0 U	1.0 U	$\mu g/L$
	Chlorobenzene	1.0 U	1.0 U	$\mu { t g}/{ t L}$
	1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	μ g/L
	Ethylbenzene	1.0 U	1.0 U	μg/L
	m-Xylene & p-Xylene	2.0 U	2.0 U	$\mu g/L$
9	o-Xylene	1.0 U	1.0 U	μg/L
	Styrene	1.0 U	1.0 U	μg/L
	Bromoform	1.0 U	1.0 U	μg/L
	Isopropylbenzene	1.0 U	1.0 U	μg/L
	1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
	Bromobenzene	1.0 U	1.0 U	μg/L
	1,2,3-Trichlorobenzene	1.0 U	1.0 U	μg/L
2	n-Propylbenzene	1.0 U	1.0 U	μg/L
	2-Chlorotoluene	1.0 U	1.0 U	μg/L
	1,3,5-Trimethylbenzene	1.0 U	1.0 U	μg/L
ij	4-Chlorotoluene	1.0 U	1.0 U	μg/L
				_

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 48 OF 65

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	LAB BLANK	Units
tert-Butylbenzene 1,2,4-Trimethylbenzene s-Butylbenzene 1,3-Dichlorobenzene p-Isopropyltoluene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichloropropane Bromochloromethane	1.0 U	1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	% RECOV 92 100 92 04/30/00	% RECOV 92 100 92 04/30/00	LIMITS 38-143 78-126 72-132

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE: 2007

PROJECT NAME : Mayport Naval Station

PAGE 49 OF 65

RESULTS OF ANALYSIS

	EPA METHOD 8260 - VOLATILE ORGANICS	<u> 1</u>	LAB BLANK	Units
	Dichlorodifluoromethane Chloromethane Vinyl Chloride		2.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
	Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene		1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
	Acetone Carbon Disulfide Methylene Chloride	·	20 U 20 U 5.0 U	μg/Kg μg/Kg μg/Kg μg/Kg
	t-1,2-Dichloroethene Methyl tert-butyl ether 1,1-Dichloroethane 2,2-Dichloropropane	y v	1.0 U 1.0 U 1.0 U 2.0 U	μg/Kg μg/Kg μg/Kg
3	<pre>c-1,2-Dichloroethene 2-Butanone Chloroform</pre>		1.0 U 20 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg
	1,1,1-Trichloroethane Carbon tetrachloride 1,1-Dichloropropene Benzene		1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
	1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane		1.0 U 1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
	Dibromomethane Bromodichloromethane		1.0 U	μg/Kg μg/Kg μg/Kg

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 50 OF 65

RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	Units
2-Chloroethyl vinyl ether c-1,3-Dichloropropene 4-Methyl-2-pentanone	6.0 U 1.0 U 20 U	μg/Kg μg/Kg
Toluene t-1,3-Dichloropropene 1,1,2-Trichloroethane	1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg
Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	3.0 U 1.0 U 20 U	μg/Kg μg/Kg μg/Kg
1,2-Dibromoethane Chlorobenzene 1,1,1,2-Tetrachloroethane	1.0 U 1.0 U 1.0 U	 μg/Kg μg/Kg μg/Kg
Ethylbenzene m-Xylene & p-Xylene o-Xylene	1.0 U 1.0 U 2.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
Styrene Bromoform Isopropylbenzene 1,1,2,2-Tetrachloroethane	1.0 U 1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg
Bromobenzene 1,2,3-Trichlorobenzene n-Propylbenzene	1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg
2-Chlorotoluene 1,3,5-Trimethylbenzene 4-Chlorotoluene	1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg

REPORT # : JAX10968 DATE REPORTED: May 3, 2000 REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 51 OF 65

RESULTS OF ANALYSIS

	EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	Units
	tert-Butylbenzene 1,2,4-Trimethylbenzene s-Butylbenzene	1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg
	1,3-Dichlorobenzene p-Isopropyltoluene 1,4-Dichlorobenzene	1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg
Programme, ser	n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane	1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
AUTOMOTIVE CONTRA	1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichloropropane	1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg
000000000000000000000000000000000000000	Bromochloromethane	1.0 U 1.0 U	μg/Kg μg/Kg
onedit.	Surrogate: Dibromofluoromethane	% RECOV 94	$\frac{\text{LIMITS}}{59-143}$
arcon autobasegggggg	D8-Toluene Bromofluorobenzene Date Analyzed	93 94 04/30/00	60-115 55-144

REPORT # : JAX10968 DATE REPORTED: May 3, 2000
REFERENCE : 2007
PROJECT NAME : Mayport Naval Station

PAGE 52 OF 65

	VOLATILE ORGANICS	•	LAB BLANK	•	
	diversity of the second		DIANK		Units
	Dichlorodifluoromethane		2.0 U		μg/L
	Chloromethane		1.0 U		μg/L
	Vinyl Chloride		1.0 U		μg/L
	Bromomethane		2.0 U		$\mu g/L$
	Chloroethane		2.0 U		μg/L
#225259	Trichlorofluoromethane		1.0 U		μg/L
#275h	1,1-Dichloroethene		1.0 U		μg/L
	Acetone		50 U	•	μg/L
	Carbon Disulfide		50 U		μg/L
	Methylene Chloride		5.0 U		μg/L
	t-1,2-Dichloroethene		1.0 U		μg/L
	Methyl tert-butyl ether		1.0 U		$\mu g/L$
***************************************	1,1-Dichloroethane		1.0 U		$\mu { t g}/{ t L}$
	2,2-Dichloropropane		2.0 U		$\mu { t g}/{ t L}$
]	c-1,2-Dichloroethene		1.0 U		μ g/L
	2-Butanone		20 U		μg/L
	Chloroform		1.0 U		μg/L
	1,1,1-Trichloroethane		1.0 U	•	μg/L
	Carbon tetrachloride		1.0 U		μg/L
	1,1-Dichloropropene		1.0 U		μg/L
600	Benzene		1.0 U		μg/L
	1,2-Dichloroethane		1.0 U		μg/L
	Trichloroethene		1.0 U		μg/L
	1,2-Dichloropropane		1.0 U		μg/L
	Dibromomethane		1.0 U		μg/L
	Bromodichloromethane		1.0 U		μg/L
					r3/-

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 53 OF 65

	EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	Units
	2-Chloroethyl vinyl ether c-1,3-Dichloropropene 4-Methyl-2-pentanone	6.0 U 1.0 U 20 U	μg/L μg/L
	Toluene t-1,3-Dichloropropene	1.0 U 1.0 U	μg/L μg/L μg/L
	1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane	1.0 U 3.0 U 1.0 U	μg/L μg/L
	2-Hexanone Dibromochloromethane	20 U 1.0 U	μg/L μg/L μg/L
	1,2-Dibromoethane Chlorobenzene 1,1,1,2-Tetrachloroethane	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
1	Ethylbenzene m-Xylene & p-Xylene o-Xylene	1.0 U 2.0 U	μg/L μg/L
	Styrene Bromoform	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
	Isopropylbenzene 1,1,2,2-Tetrachloroethane Bromobenzene	1.0 U 1.0 U	μg/L μg/L
	1,2,3-Trichlorobenzene n-Propylbenzene	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
	2-Chlorotoluene 1,3,5-Trimethylbenzene 4-Chlorotoluene	1.0 U 1.0 U	μg/L μg/L
wagipu		1.0 U	μ g/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 54 OF 65

EPA METHOD 8260 (cont.) - VOLATILE ORGANICS	LAB BLANK	Units
tert-Butylbenzene 1,2,4-Trimethylbenzene s-Butylbenzene	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
1,3-Dichlorobenzene p-Isopropyltoluene 1,4-Dichlorobenzene	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichloropropane	1.0 U 1.0 U 2.0 U 1.0 U	μg/L μg/L μg/L
Bromochloromethane Surrogate:	1.0 U	μg/L μg/L
Dibromofluoromethane D8-Toluene Bromofluorobenzene	% RECOV 92 100 92	LIMITS 38-143 78-126 72-132
Date Analyzed	04/30/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 55 OF 65

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 8260 1,1-Dichloroethene Benzene Trichloroethene Toluene Chlorobenzene	102/ 99/ 80 96/102/ 93 101/102/ 97 99/101/ 98 104/101/ 99	45-167 60-130 50-122 57-136 59-126	3 6 <1 2 3	30 23 10 12

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 56 OF 65

QUALITY CONTROL DATA

	Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
	EPA Method 8270 Phenol 2-Chlorophenol 1,4-Dichlorobenzene N-Nitrosodi-N-Propylamine 1,2,4-Trichlorobenzene 4-Chloro-3-methylphenol Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluene Pentachlorophenol Pyrene	50/ 50/ 59 68/ 69/ 79 47/ 47/ 50 55/ 53/ 64 58/ 57/ 58 84/ 89/ 88 70/ 75/ 72 26/ 30/ 28 92/ 94/ 99 94/103/ 80 120/128/128	29-102 58-124 0-127 72-118 18-129 75-126 63-122 0-168 81-151 27-154 54-146	<1 1 <1 4 2 6 7 14 2 9	44 41 43 22 43 22 28 52 21 42 32
Ø.	Lyrone	120/120/120	34-146	6 .	32

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE: May 3, 2

PROJECT NAME : Mayport Naval Station

PAGE 57 OF 65

QUALITY CONTROL DATA

	Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
	EPA Method 8270 Phenol	50/ 50/ 59	29-102	<1	44
C	2-Chlorophenol	68/ 69/ 79	58-124	1	41
	1,4-Dichlorobenzene	47/ 47/ 50	D-127	<1	43
	N-Nitrosodi-N-Propylamine	55/ 53/ 64	72-118	4	22
	1,2,4-Trichlorobenzene	58/ 57/ 58	18-129	2	43
	4-Chloro-3-Methylphenol	84/ 89/ 88	75-126	· 6	22
	Acenaphthene	70/ 75/ 72	63-122	7	28
	4-Nitrophenol	26/ 30/ 28	D-168	14	52
	2,4-Dinitrotoluene	92/ 94/ 99	81-151	2	21
	Pentachlorophenol	94/103/ 80	27-154	9	42
	Pyrene	120/128/128	54-146	6	32

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

REPORT # : JAX10968 DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 58 OF 65

QUALITY CONTROL DATA

Para	ameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
Pher	Method 8270 nol nlorophenol	50/ 50/ 59 68/ 69/ 79	29-102 58-124	<1 1	44 41
1,4	-Dichlorobenzene itrosodi-N-Propylamine	47/ 47/ 50 55/ 53/ 64	0-127 72-118	<1 4	43
4 - Cl	,4-Trichlorobenzene hloro-3-methylphenol	58/ 57/ 58 84/ 89/ 88	18-129 75-126	2 6	43
4-N:	naphthene itrophenol -Dinitrotoluene	70/ 75/ 72 26/ 30/ 28 92/ 94/ 99	63-122 0-168 81-151	14 2	28 52 21
•	tachlorophenol	94/103/ 80 120/128/128	27-154 54-146	9	42 32

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than

< = Less Than
MS = Matrix Spike</pre>

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

REPORT # : JAX10968 **DATE REPORTED**: May 3, 2000 **REFERENCE** : 2007

PROJECT NAME : Mayport Naval Station

PAGE 59 OF 65

QUALITY CONTROL DATA

	Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
	EPA Method 8270 Phenol	50/ 50/ 59	29-102	. .	
	2-Chlorophenol	68/69/79	58-124	<1 1	44 41
900	1,4-Dichlorobenzene	47/ 47/ 50	0-127	<1	43
	N-Nitrosodi-N-Propylamine	55/ 53/ 64	72-118	4	22
	1,2,4-Trichlorobenzene	58/ 57/ 58	18-129	2	43
	4-Chloro-3-Methylphenol	84/ 89/ 88	75-126	. 6	22
M	Acenaphthene	70/ 75/ 72	63-122	7.	28
	4-Nitrophenol	26/ 30/ 28	0-168	14	52
	2,4-Dinitrotoluene	92/ 94/ 99	81-151	2	21
529°5	Pentachlorophenol	94/103/ 80	27-154	9	42
	Pyrene	120/128/128	54-146	6	32

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

REPORT # : JAX10968 DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 61 OF 65

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 8270 Phenol 2-Chlorophenol 1,4-Dichlorobenzene N-Nitrosodi-N-Propylamine 1,2,4-Trichlorobenzene 4-Chloro-3-Methylphenol Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluene Pentachlorophenol	50/ 50/ 59 68/ 69/ 79 47/ 47/ 50 55/ 53/ 64 58/ 57/ 58 84/ 89/ 88 70/ 75/ 72 26/ 30/ 28 92/ 94/ 99 94/103/ 80 120/128/128	29-102 58-124 0-127 72-118 18-129 75-126 63-122 0-168 81-151 27-154	<1 1 <1 4 2 6 7 14 2 9	44 41 43 22 43 22 28 52 21 42 32
Pyrene	120/120/120	3. 1.40		22

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than
MS = Matrix Spike</pre>

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 60 OF 65

QUALITY CONTROL DATA

	Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
	EPA Method 8270		•		• • • • • • • • • • • • • • • • • • •
	Phenol	50/50/59	29-102	<1	44
	2-Chlorophenol	68/ 69/ 79	58-124	1	41
	1,4-Dichlorobenzene	47/ 47/ 50	0-127	<1	43
	N-Nitrosodi-N-Propylamine	55/ 53/ 64	72-118	4	22
	1,2,4-Trichlorobenzene	58/ 57/ 58	18-129	$\dot{2}$	43
	4-Chloro-3-methylphenol	84/ 89/ 88	75-126	6	22
(F)	Acenaphthene	70/ 75/ 72	63-122	7	28
	4-Nitrophenol	26/ 30/ 28	0-168	14	52
	2,4-Dinitrotoluene	92/ 94/ 99	81-151	2	21
	Pentachlorophenol	94/103/ 80	27-154	9	42
	Pyrene	120/128/128	54-146	6	32
	• · · · · · · · · · · · · · · · · · · ·				

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 62 OF 65

QUALITY CONTROL DATA

	Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
	EPA Method 8270				•
	Phenol	50/ 50/ 59	29-102	<1	44
	2-Chlorophenol	68/ 69/ 79	58-124	1	41
	1,4-Dichlorobenzene	47/ .47/ 50	0-127	<1	43
	N-Nitrosodi-N-Propylamine	55/ 53/ 64	72-118	.4	22
20	1,2,4-Trichlorobenzene	58/ 57/ 58	18-129	2	43
150)	4-Chloro-3-methylphenol	84/ 89/ 88	75-126	6	22
	Acenaphthene	70/ 75/ 72	63-122	7	28
	4-Nitrophenol	26/ 30/ 28	0-168	14	52
	2,4-Dinitrotoluene	92/ 94/ 99	81-151	2	21
a	Pentachlorophenol	94/103/ 80	27-154	9	42
	Pyrene	120/128/128	54-146	6	32

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 63 OF 65

QUALITY CONTROL DATA

	Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
	EPA Method 8270				
	Phenol	50/ 50/ 59	29-102	<1	44
	2-Chlorophenol	68/ 69/ 79	58-124	1	41
ateses»	1,4-Dichlorobenzene	47/ 47/ 50	0-127	<1	43
	N-Nitrosodi-N-Propylamine	55/ 53/ 64	72-118	4	22
	1,2,4-Trichlorobenzene	58/ 57/ 58	18-129	2	43
	4-Chloro-3-Methylphenol	84/ 89/ 88	75-126	6	22
	Acenaphthene	70/ 75/ 72	63-122	7	28
	4-Nitrophenol	26/ 30/ 28	0-168	14	52
Marcoll .	2,4-Dinitrotoluene	92/ 94/ 99	81-151	2	21
#0000m	Pentachlorophenol	94/103/ 80	27-154	9	42
	Pyrene	120/128/128	54-146	6	32

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

REPORT # : JAX10968 DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 64 OF 65

QUALITY CONTROL DATA

	Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS		ACCEPT LIMITS
	EPA Method 8270 Phenol 2-Chlorophenol	89/ 79/ 88 93/ 84/ 91	48-111 42-110	12 10	38 38
	1,4-Dichlorobenzene N-Nitrosodi-N-Propylamine 1,2,4-Trichlorobenzene	75/ 67/ 79 65/ 56/ 65 76/ 73/ 84	42-110 41-118 45-111	11 15 4	33 29 20
	4-Chloro-3-methylphenol Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluene	76/ 74/ 76 78/ 77/ 80 34/ 31/ 32 82/ 73/ 87	49-120 38-135 44-169	3 1 9	38 29 68
	Pentachlorophenol Pyrene	76/ 71/ 67 95/ 92/102	42-155 0-157 40-116	12 7 3	32 41 37
1	MISCELLANEOUS Percent Solids, SM2540G	NA/ NA/ NA		NA	
	TOTAL METALS Arsenic, 200.7 Arsenic, 6010 Barium, 200.7	102/104/102 95/ 92/100 97/ 98/ 99	64-126 53-153 74-119	2 3 1	12 22 11
	Barium, 6010 Cadmium, 200.7 Cadmium, 6010	97/ 96/100 95/ 97/ 99 92/ 91/ 98	70-120 68-121 59-130	1 2 1	16 12 24
	Chromium, 200.7 Chromium, 6010 Lead, 200.7 Lead, 6010	96/ 98/ 98 92/ 89/ 99 98/ 99/100 102/101/101	73-120 57-135 68-126 63-128	2 3 1 <1	10 24 19 26
	Environmental Conservation	Laboratories	Comprehensive QA	Plan #910190	

< = Less Than

MS = Less inan
MS = Matrix Spike

MS = Matrix Spike
MSD - Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

REPORT # : JAX10968
DATE REPORTED: May 3, 2000

REFERENCE : 2007

PROJECT NAME : Mayport Naval Station

PAGE 65 OF 65

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT
Mercury, 245.1 Mercury, 7471 Selenium, 200.7 Selenium, 6010 Silver, 200.7 Silver, 6010	113/111/112 115/135/118 80/83/100 87/86/95 101/103/102 97/95/101	70-136 71-138 65-129 60-121 69-121	2 16 4 1 2 2	12 13 10 14 12
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	119/120/ 89	51-163	<1	27
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	80/ 68/ 74	62-204	16	25

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference



CLIENT ADDRESS (CITY, STATE, ZIP) TWIROWNENT

Lowy Kono, Athentic

DATE

· time

GRAB

COMP

SAMPLE IDENTIFICATION

13:45

SAMPLE

the Contract of the Contract o

1174/P

MW-13S

Style Outsines

多

Kichmollbrane des Collected

MW-035 MW-158

2012

12/00

11:40

MW-

5

24:51 02:21

7MW-3 MWZ CLIENT NAME

4-20/1/COEM

recover

Chuck Ne VIN

QU 32233

SURFACE WATER

OTHER

ER OF CONTAINERS SUBMITTED MODES ERVATIVE

Date Due:

REMARKS

DELIVERY (surcharge)

STANDARD REPORT DELIVERY

JECT REFERENCE

Tatas

PROJECT NO.

ERI#2007

NATRIX TYPE

MURED ANALYSIS

PAGE

읶

华上

 \widehat{s}

09:15

į

Sanki Huno-de

TAXA COM

for transport

00:00

8.0

3

RELINQUISHED BY: (SIGNATURE)

RECEIVED BY (SIGNATURE)

DJACKSONVILLE SAMPLE KIT PREPARED BY:

DOR_ANDO

DATE

TIME

RELINQUISHED BY: (SIGNATURE)

DATE

TIME

RECEIVED 3Y: (SIGNATURE)

Chistory Serves for Times

le Codess Sexted

DATE

TIME

RELINQUISHED BY: (SIGNATURE)

DATE

TIME

RECEIVED BY: (SIGNATURE)

DATE

TIME

CUSTODY

ENCOLOGY

John Owner

7 600

21/21/20 15/21/2-12/3

C8260/5035

REMARKS EACH SAmple RIT CORPUTS:

HX (8260)

8.

3x 40z Ghas

C8270, FIAO

1/15/08

16257 16257

RECEIVED BY: (SIGNATURE)

DATE

TIME

DATE

ĦME

YES

O N O

ENVIRONMENTAL CONSERVATION LABORATORIES

ENC	4810 Executive Park Court, Suite 211 Jacksonville, Florida 32216-6069 Ph. (904) 296-3007 • Fax (904) 296-6210	*****
O CompQAP No.: 960038G/0 CHA	4810 Executive Park Court, Suite 211 10207 General Drive 1015 Passport Way Jacksonville, Florida 32216-6069 Orlando, Florida 32824-8529 Cary, North Carolina 27513 Ph. (904) 296-3007 • Fax (904) 296-6210 Ph. (407) 826-5314 • Fax (407) 850-6945 Ph. (919) 577-1669 • Fax (919) 677-9846	
ENCO Compaa? No.: 960038G/O CHAIN OF CUSTODY RECORD	1015 Passport Way Cary, North Carolina 27513 Ph. (919) 377-1669 • Fax (919) 677-9846	

ATTACHMENT B

Well Sampling Field Logs

elative to Mea Vell Diameter Vell Volume _ Vell Type:	Mayou Now 15 S D an Sea Level: T 2 in. We 1.0 ga upgradient	Cop of Casing all Construction by Well Vol H=downgradi	(TOC) n ft. = 6.52 /H ent hot	in. slotte ×/ 3, 28 /DT	ft Station of Station	c Water Casing 63= _/ ft	Level g Materia <u>0</u> gal/	l 20	<u> </u>
urge Informati urging eqpt: _	Latituden: Latituden: TEdon Bail ne: 13: 28	lu		Purge Well l	rate: Recharge	0. 5 Rate: _	gal/	min.	
Volume	Gallons	pН	Conducti	vity Te	mp. (°C))	Time		Other
					1 –	1			·
<u> </u>			PURGER) well	5	Vohr	is	-	
3			/						
4						_			
5								_	
	1	ł	i			1		- 1	
	arameters			Tota	l gallons	purged	: 5.0		
Purge Stop Time ample Information	ne:/3:38 ation: ion Time:	13:45	2	Sam		ected Us	:5.0 sing: <i>JU</i>		
Purge Stop Time cample Information Collection Order of Samp	ne:/3:38 ation: ion Time: pling	13:45	2	Sam	ple Colle	ected Us	•		- eles 6
Purge Stop Time cample Information ample Collection Order of Sample Sample Param	ne: /3:38 ation: ion Time: pling neters	1 8260	8270	Sam 3 FI-PRO	ple Colle	ected Us	sing: <i>10</i>		
Purge Stop Time cample Information Collection Order of Samp	ne: /3:38 ation: ion Time: pling neters	13:45		Sam 3 FI-PRO Zx 1000m Ghas floor	ple Colle	ected Us 4 Mehls 5001	sing: <i>10</i>		
Purge Stop Time cample Information Collection Order of Sample Sample Param	ne: /3:38 ation: ion Time: pling neters iiners	1 826 0 2×4028	8270 1×1000£	Sam 3 FI-PRO Zx (000m)	ple Colle	4 sected Us	sing: <i>10</i>		
Purge Stop Time ample Information Collection Order of Sample Sample Parameter Sample Contains Sample Conta	ne: /3:38 ation: ion Time: pling neters iners red Samples	1 8260 2x402 Vish's	8270 1×10001 61455 (Ambu)	Sam 3 FI-PRO Zx 1000m Ghas floor	ple Colle	ected Us 4 Mehls 5001	sing: <i>10</i>		
Purge Stop Time ample Information Collection of Sample Parameter Sample Parameter Sample Contact photophore of Preserv Additional Preserver Additional Preserver Parameter Sample Contact photophore of Preserver Additional Preserver Parameter Sample Contact photophore of Parameter Sample Contact photophore of Sample Contact photoph	ne: /3:38 ation: ion Time: pling neters iners red Samples eservative	13:45 1 BZG 0 2x402 VINDS HCL CZ	8270 1×1000 l 61055 (Gomber)	Sam 3 FI-PRO Zx 1000m Block (About Land)	ple Colle	ected Us 4 5001 5001 5001	5 5	Flow Base	6
Purge Stop Time ample Information Collection Corder of Sample Sample Parame Sample Contact pH of Preserv	ne:/3:38 ation: ion Time: pling neters iiners red Samples eservative	1 8260 2x402 Vish's	8270 1×1000 l 61055 (Gomber)	Sam 3 FI-PRO Zx 1000m Ghas floor	ple Colle	ected Us 4 5001 5001 5001	5 5		6
Purge Stop Time ample Information Collection of Sample Parameter Sample Parameter Sample Contain photophological Product noted: Comments: Field Instruments	ne: /3:38 ation: ion Time: pling neters iners red Samples reservative nt Information:	13:45 1 BZG 0 2x402 VINDS HCL CZ	8270 1×1000 l 61055 (Gomber)	Sam 3 FI-PRO Zx 1000m Block (About Land)	ple Colle	ected Us 4 5001 5001 5001	5 5	Flow Base	6
Purge Stop Time Cample Information Conder of Sample Parame Sample Parame Sample ContampH of Preserv Additional Preservation Comments: Sield Instruments Us	ne:/3:38 ation: ion Time: pling neters iiners red Samples eservative nt Information: sed:/	13:45 1 BZG 0 2x402 VINDS HCL CZ	8270 1×1000 l 61055 (Gomber)	Sam 3 FI-PRE Zx 100000 Ethic (this last) Last 2 Color	ple Colle	mehls 5001 017	sing: I	How Ban	6 DEAN
Purge Stop Time ample Information ample Collection of Sample Contage Sample Paramed Sample Contage Product noted: Product noted: Product noted: Comments: Field Instruments Use Calibration: plantient Conditional Conditional Product noted:	ne:/3:38 ation: ion Time: pling neters inners red Samples reservative nt Information: sed: H 4.0 itions:	1 8260 2x402 yings Hel = 22 Odor noted	8270 1x 1000 l 64x55 (Ambe) UND 285	Sam 3 F1-PRO Zx 1000 Ether (the LxSay 2 Color Conduction 8-/2	ple Colle	ected Us 4 5001 5001	sing: I	Flow Base	6 DEAN
Purge Stop Time ample Information ample Collection of Sample Contage Sample Paramed Sample Contage Product noted: Product noted: Product noted: Comments: Field Instruments Use Calibration: plantient Conditional Conditional Product noted:	ne:/3:38 ation: ion Time: pling neters iiners red Samples reservative nt Information: sed:/4 H 4.0	1 8260 2x402 yings Hel = 22 Odor noted	8270 1x 1000 l 64x55 (Ambe) UND 285	Sam 3 F1-PRO Zx 1000 Ether (the LxSay 2 Color Conduction 8-/2	ple Colle	mehls 5001 017	sing: I	How Ban	6 DEAM
Purge Stop Time Cample Information ample Collection of Sample Contage Sample Parame Sample Contage Product noted: Comments: Field Instruments Us Calibration: planbient Conderield Personne.	ne:/3:38 ation: ion Time: pling neters inners red Samples reservative nt Information: sed: H 4.0 itions:	1 8260 2x402 2x402 3:45 HCL <2 Odor noted 7.0 (807) (101444) Market Market	8270 1×1000 l GWSS Gambe) UND 10.0 ercrst winder OR. April / Ell	Sam 3 FI-PRO Zx 100000 Ether (the H-Say 2 Color Conducti O 8-12	ple Colle	ected Us 4 5001 5001	sing: I	How Ban	6 DEAN

ell Diameterell Volumeell Type:ongitude	_upgradient _ Latite	op of Casing (cell Construction Well Vol- H= _75_3 downgradio	TOC) ft. = 5.08 /H × to /TD - <u>/0</u> ent hot :	in. slotted s c / /r² DTW=	Static W <u>creen</u> Ca × 0.163= = 5.08	ater Level asing Mate <u>0.23</u> g ft	crial	VC
rge Information orging eqpt: orge Start Tim	on: Terlon Ba ie: 14:03	.l~		Purge rate Well Rec	e: <u>0</u> charge Rat	,5 e: 600 D	al/min.	
	Gallons	pH		vity Temp				Other
/			naes wer	1 5 Vol	ines			and the first terms and the same second
3								
4								
5								
	 							
					1			
	rameters			Total g	gallons pur	rged: _ 5. 0	0	
rurge Stop Tim cample Informa cample Collect	ne:		2	_	•	d Using: 🗾		Briles 6
Purge Stop Time cample Information Control Cample Collect Order of Samp	ne: <u>14:13</u> ntion: ion Time: <u>/4</u> pling	1		Sample 3	Collected	d Using: 2	TEFON	
Purge Stop Time cample Information Cample Collect Order of Samp Sample Param	ne:	1 BZ60 ZX40x8	8270 1×1000£	Sample 3 FI-PRO Zx 10000L	Collected 4 /# /# /# // // // // // //	d Using: 2	TEFON	
Purge Stop Time cample Information Control Cample Collect Order of Samp	ne:	1 8260 2x400 VINS	8270 1×1000 l 61455 (Amber)	Sample 3 H-PRo	Collected 4 1 de le	d Using: Z	TEFON	
Purge Stop Time cample Information Collect Order of Sample Sample Param Sample Conta	ne:	1 BZ60 ZX40x8	8270 1×1000£	Sample 3 FI-PRO Zx 10000L Block Conse	Collected 4 1 de le	d Using: Z	TEFON	
Purge Stop Time ample Information Collection Order of Sample Sample Param Sample Contain pH of Preserve	ne:	1 8260 2x400 VINS	8270 1x 1000 S 61x55 (Gmbc)	Sample 3 FI-PRO Zx 10000L GHAS GAMSE H-Say <2	Collected 4 14 23 POLY 1×50 Poly 1N03	d Using: Z	5	6
Purge Stop Time cample Information Collect Corder of Sample Param Sample Param Sample Contained Product noted: Comments:	ne:	1 826 0 2×40 0 1/1/25 HeL = 22 Odor noted	8270 1×1000 l 61455 Gmbe) UNF	Sample 3 FI-PRO Zx 10000L GHAS GAMSE H-Say <2	Collected 4 1055 POLY 1/2 SOLY	d Using: Z	5	6

j

Vell Diameter _ Vell Volume <u>#</u>	135 De n Sea Level: To 2 in. Wel 194610 gal	op or Casing (Il Construction Well Vol= H= (5.1)	10C) 1ft. = <u>5.77</u> /H >	in. sl	otted scr /r² × /DTW=	reen Ca : 0.163= : 5.77	sing Materia <u>0,94</u> gal ft	al <u>avc</u>
Vell Type:	_upgradient Latitu	downgradie	ent hot	spot				C
urge Informatio	on: Todon BA. e: 1432	len		Pu	rge rate:	0. 9	s gal/	min.
urging eqpt urge Start Tim	e: <u>432</u>			W	ell Rech	arge Rate	e: 6.0 0	
Volume	Gallons	pН	Conductiv	1		(°C)		Other
1					•			
2			\supset					
3	_	I Tu	YOGEN U	Ell	5	Vol	us:	
4		/						
5								
Field Pa	rameters							
Purge Stop Tim	ne: <u>/4:42</u>				Ū	-	ged: <u>3.0</u> I Using: <u>72</u>	
Sample Informa	ion Time:	:45					•	TION DANCE
Sample Informa	ion Time: <u>/4</u> .	1	2		3	4	5	
Sample Informa Sample Collecti	ion Time: <u>/4</u> .	1 8260	2 827 0	FI:	3 -PRo	4 I stal (35 RCR4 med	5 U	
Sample Informa Sample Collecti Order of Samp	pling	1 8260 2x40x0	8270 1×1000\$	Zx	-PRO	4 1 1 styl p.CR4 met 1 x 500	5 U	
Sample Informa Sample Collect Order of Samp Sample Param	pling neters iners	8260	8270 1×1000 S 6655 (Ambu)	Zx " Ethro	-PRO	4 I stal (35 RCR4 med	S S	
Sample Informa Sample Collect Order of Sample Sample Param Sample Conta	pling neters iners red Samples	1 8260 2x402 VINS	8270 1×1000\$	Zx " Ethro	-PRO 000L WAREEN	1 / des l poly met 1 x 500) poly	S S	

te Location:	Mayout Noul	Station in	el Depot	-Tanks	97 100 101		0/7
ell I.D. Tuc	De De	epth of well (f	rom TOC)	10,60	_ft Depth t	o water	8,67
elative to Mean	n Sea Level: To in. We	op of Casing (10C)	in slotted so	reen Casin	Material	211
ell Diameter _	0.32 oal	Well Vol=	/.93 /H >	< / /r ²	× 0.163= 0.	3/ gal/v	vol
cii voidino	0.32 gal	H= 10.6	0 /TD - 8.	67 /DTW=	1.97 ft		
ell Type:	_upgradient _	downgradie	ent hot	spot			0
	Latitu						
raina eant.	Paristalt	re Pmp		Purge rate	: <u>0,2</u>	gal/r	nin.
irge Start Time		17		Well Rec	harge Rate: _	5000	
	Gallons	pН	Conductiv	vity Temp	. (°C)	Time	Other
1	0.32				00		<u> </u> -
Z	0.64			yo we	1		
3	0.86		Just	ED We	slund		
4	1,18		1	\$ '			
5	1.50						
	1. , -						
		ł					
Field Pa	rameters						
Purge Stop Tim	e: _11: 36			Total g	allons purged	:_1,6	
Purge Stop Tim	e: _11: 36	1:40			allons purged		
Purge Stop Tim	tion:	1	2				
Purge Stop Time Sample Informations Cample Collection Order of Sample Company	tion: ion Time:	1	2 827 0	Sample 3	Collected Us	sing: <u>10</u>	Fon Baska
Purge Stop Time Sample Informations Sample Collection Order of Sample Sample Param	tion: ion Time:	1 8260 2×4028	8270 1×1000\$	Sample 3 FI-PRO Zx 1000al	Collected Us 4 1050 1×500 Collected Us	sing: <u>10</u>	Fon Baska
Purge Stop Time Sample Informations Sample Collection Order of Sample Sample Parame Sample Conta	tion: ion Time:	1 8260 2×40,0 Vinis	8270 1×1000 l 61×55 (smbe)	Sample 3 FI-PRO Zx 1000ml Lihrs (house)	Collected Us 4 1053 pully methods 1x 5001	sing: <u>10</u>	Fon Baska
Purge Stop Time Sample Informations Cample Collection Order of Sample Sample Parame Sample Contactions pH of Preserv	te: //: 36 tion: ion Time: // pling neters iners ed Samples	1 8260 2×4028	8270 1×1000\$	Sample 3 FI-PRO Zx 1000al	Collected Us 4 1050 1×500 Collected Us	sing: <u>10</u>	Fon Baska
Purge Stop Time Sample Informations Sample Collection Order of Sample Sample Parame Sample Conta	te: //: 36 tion: ion Time: // pling neters iners ed Samples	1 8260 2×40,0 Vinis	8270 1×1000 l 61×55 (smbe)	Sample 3 FI-PRO Zx 1000ml Lihrs (house)	Collected Us 4 1053 pully methods 1x 5001	sing: <u>10</u>	Fon Baska
Purge Stop Timesample Informations Cample Collection Order of Sample Sample Parame Sample ContampH of Preserv Additional Preserved.	tion: ion Time:	1 8260 2×402 Vints HCL <2	8270 1×1000 l 61×55 (smber) UNF	Sample 3 FI-PRO Zx 1000ml Ether Hassy Hasay CZ	Collected Us 4 1053 pully mekly 1x 500 poly 1/NO3 < 7	sing: 70	Fon Baska
Purge Stop Time Sample Information Conder of Sample Sample Param Sample Param Sample Conta pH of Preserv Additional Preserv Product noted:	tion: ion Time: pling neters iners ed Samples eservative	1 BZG 0 ZXYOL VINIS HCL < Z Odor noted:	8270 1×1000 & 64755 (Ambe) UNF	Sample 3 FI-PRO Zx 10000l Ether Gase H-Say <2	Collected Us 4 1053 pully methods 1x 5001	sing: 70	Fon Baska
Purge Stop Time Sample Information Cample Collection Order of Sample Sample Param Sample Conta pH of Preserv Additional Preserv Product noted: Comments:	tion: ion Time: pling neters iners ed Samples eservative Neve Terstale 7	1 8260 2×402 Vints HCL <2	8270 1×1000 & 64755 (Ambe) UNF	Sample 3 FI-PRO Zx 1000ml Ether Hassy Hasay CZ	Collected Us 4 1053 pully mekly 1x 500 poly 1/NO3 < 7	sing: 70	Fon Baska
Purge Stop Times ample Information Sample Collection Order of Sample Param Sample Param Product noted: Product noted: Comments: Field Instruments	tion: ion Time: pling neters iners ed Samples eservative	1 BZG 0 ZXYOL VINIS HCL < Z Odor noted:	8270 1×1000 & 64755 (Ambe) UNF	Sample 3 FI-PRO Zx 10000l Ether Gase H-Say <2	Collected Us 4 1053 pully mekly 1x 500 poly 1/NO3 < 7	sing: 70	Fon Baska
Purge Stop Time Sample Information Cample Collection Order of Sample Sample Param Sample Conta pH of Preserv Additional Preserv Product noted: Comments:	tion: ion Time: pling neters iners ed Samples eservative Nove Installe int Information: ied:	1 BZG 0 ZXYOL VINIS HCL < Z Odor noted:	8270 1x 1000 l 61x35 Gmbe) UN p 4es 0930 - S	Sample 3 FI-PRO Zx 100000 Ether Gase Color: 6 Conduction	Collected Us 4 1000 1	sing: 70	For Barber 6 Vis Mode
Order of Sample Conta Sample Param Sample Param Sample Conta pH of Preserv Additional Pre Product noted: Comments: Field Instruments Us Calibration: pl Ambient Cond	tion: tion Time: tion	1 8260 2×402 1 1 1 1 1 1 1 1 1 1 1 1 1	8270 1x/000 S 61x55 Gambe) UNP 4es 0930 - S	Sample 3 FI-PRO Zx 1000Ll Ether Basse H-Say <2 Color: 6- Conductive O 8-12 and	Collected Us 4 14 12 12 12 12 12 12 12 12	Sing: Id	For Barber 6 Vis Mode
Order of Sample Conta Sample Param Sample Param Sample Conta pH of Preserv Additional Pre Product noted: Comments: Field Instruments Us Calibration: pl Ambient Cond	tion: ion Time: pling neters iners ed Samples eservative	1 8260 2×402 1 1 1 1 1 1 1 1 1 1 1 1 1	8270 1×1000 l 6455 (Gmbe) UNP 4es 0930 - S	Sample 3 FI-PRO Zx 100000 Ether Gase Color: 6 Conduction	Collected Us 4 1000 1	Sing: Id	For Barber 6 Vis Mode
Order of Sample Conta Sample Param Sample Param Sample Conta pH of Preserv Additional Pre Product noted: Comments: Field Instruments Us Calibration: pl Ambient Cond	tion: tion Time: tion	1 8260 2×402 1 1 1 1 1 1 1 1 1 1 1 1 1	8270 1x/000 S 61x55 Gambe) UNP 4es 0930 - S	Sample 3 FI-PRO Zx 1000Ll Ether Basse H-Say <2 Color: 6- Conductive O 8-12 and	Collected Us 4 14 12 12 12 12 12 12 12 12	Sing: Id	For Barber 6 Vis Mode
Purge Stop Time Sample Information Corder of Sample Sample Param Sample Param Sample Conta pH of Preserv Additional Preserv Additional Preserv Product noted: Comments: Field Instruments Us Calibration: pl Ambient Cond Field Personne	tion: tion Time: tion	Description of the state of the	8270 1x/000 S 61x55 Gambe) UNP 4es 0930 - S	Sample 3 FI-PRO Zx 1000ml Elfres (1005) H-Say <2 Color: 67 Conductive D 8-12 williams and	Collected Us 4 14 12 12 12 12 12 12 12 12	Sing: Id	For Barber 6 Vis Mode

Vell ID: Mell -	-lating to Many	Mayout Now! De De Sea Level: To	ו סמופגו זה מכ	11111	11	Static Water	TCACI	
Well Type:upgradientdowngradient hot spot	/ell Diameter _	Z in. We	Il Construction	ı ft.	in. slotted so	creen Casing	Material	- zuc
Well Type:upgradientdowngradienthot spot		•	11" (0.00	U 1110 1740	, , , , , , , , , , , , , , , , , , , ,			
Purge Information: Purge Start Time: 12:01 Volume Gallons pH Conductivity Temp. (°C) Time O 1 0,35 2 0,1 3 1.05 4 1.40 5 1.75 Field Parameters Purge Stop Time: 12:12 Sample Collection Time: 12:22 Order of Sampling 1 2 3 4 5 Sample Parameters Sample Containers Purge Stop Time: 2x10x1 Sample Conductivity Temp. (°C) Time O Order of Sampling 1 2 3 4 5 Sample Parameters Purge Stop Time: 12:24 Sample Collection Time: 12:25 Sample Collection Time: 12:25 Sample Parameters Purge Stop Time: 12:25 Sample Collection Time: 12:26 Sample Collection Time: 12:27 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:45 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 12:26 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 14:50 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 15:00 Sample Collected Using: 14:50 Sample Collected Using: 14:50 Sample Parameters Purge Stop Time: 16:00 Sample Parameters Purge Stop Time: 16:00 Purge Sto	Vell Type:	_upgradient _	downgradie	ent hot	spot			·
Purge Start Time: 72:07 Volume Gallons pH Conductivity Temp. (°C) Time O 1 0.35 2 0.7 3 1.05 4 1.40 5 1.75 Field Parameters Purge Stop Time: 12 16 Sample Information: Sample Collection Time: 12 20 Order of Sampling 1 2 3 4 5 Sample Parameters Sample Parameters Sample Containers Sample Containers Purge Stop Time: 12 16 Sample Parameters Sample Collected Using: 15 16 16 16 16 16 16 16 16 16 16 16 16 16	ongitude	Latitu	ide					
Purge Start Time: 72:07 Volume Gallons pH Conductivity Temp. (°C) Time O 1 0.35 2 0.7 3 1.05 4 1.40 5 1.75 Field Parameters Purge Stop Time: 12 16 Sample Information: Sample Collection Time: 12 20 Order of Sampling 1 2 3 4 5 Sample Parameters Sample Parameters Sample Containers Sample Containers Purge Stop Time: 12 16 Sample Parameters Sample Collected Using: 15 16 16 16 16 16 16 16 16 16 16 16 16 16	urging eqpt:	FERUIL	taky					nin.
Purge Stop Time: 12-16 Sample Collected Using: Ither Bate	urge Start Tim	e: <u>12:07</u>						T
Pield Parameters Purge Stop Time:	Volume	Gallons	pН	Conductiv	vity Temp	. (°C)	Time	Ot
Pield Parameters Total gallons purged: Purge Stop Time: 12.76 Sample Information: Sample Collection Time: 12.20 Sample Collected Using: Island Ballons	1	0.35			ļ	.00		
Field Parameters Purge Stop Time: 12.16 Sample Information: Sample Collection Time: 12.20 Sample Collection Time: 12.20 Sample Parameters Sample Parameters Sample Parameters Sample Containers Sam	7	0.7		7.06	4) W			
Field Parameters Purge Stop Time:		0) [+	1010		~		
Field Parameters Purge Stop Time: 12.16 Sample Information: Sample Collection Time: 12:20 Order of Sampling I 2 3 4 5 Sample Parameters Sample Parameters Sample Containers Sample Containers Purge Stop Time: 12:20 Sample Collected Using: 1460 But		1.05		+	Up .			
Field Parameters Purge Stop Time: 12.16 Sample Information: Sample Collection Time: 12.20 Order of Sampling I 2 3 4 5 Sample Parameters Sample Parameters Sample Containers Sample Containers Purge Stop Time: 12.20 Sample Collected Using: 14.60 Sample Collected Using: 14.60 Sample Parameters Sample Parameters Sample Containers Purge Stop Time: 12.10 Sample Collected Using: 14.60 Sample Collected Using: 14.60 Sample Collected Using: 14.60 Sample Parameters Sample Parameters Sample Parameters Sample Parameters Sample Containers Purge Stop Time: 12.20 Sample Collected Using: 14.60 Sample Parameters Sample Param	4	1.40			· ·			
Purge Stop Time: 12.16 Sample Information: Sample Collection Time: 12.20 Sample Collected Using: 12.20 Order of Sampling I 2 3 4 5 Sample Parameters Sample Parameters Sample Containers Sample Containers Total gallons purged: 26 Sample Collected Using: 12.20 Sample Collected Using: 12.20 Figure 12.20 Sample Collected Using: 12.	5	1.75						
Purge Stop Time: 12.14 Sample Information: Sample Collection Time: 12.20 Sample Collected Using: Ithorham Order of Sampling 1 2 3 4 5 Sample Parameters 8260 8270 9-PRo pila mells Sample Containers 1x 500l Sample Containers 1x 500l Sample Containers 1x 500l Shis Gambo 64x 400s 40 poly PH of Preserved Samples 4CL CZ Jup 4x 500l						-		
Purge Stop Time: 12.16 Sample Information: Sample Collection Time: 12.20 Sample Collected Using: 12.20 Order of Sampling I 2 3 4 5 Sample Parameters Sample Parameters Sample Containers Sample Containers Total gallons purged: 26 Sample Collected Using: 12.20 Sample Collected Using: 12.20 Figure 12.20 Sample Collected Using: 12.		i ,		1 '	į.	i		1
Purge Stop Time: 12.16 Sample Information: Sample Collection Time: 12.20 Sample Collected Using: 12.20 Order of Sampling I 2 3 4 5 Sample Parameters Sample Parameters Sample Containers Sample Containers Total gallons purged: 26 Sample Collected Using: 12.20 Sample Collected Using: 12.20 Figure 12.20 Sample Collected Using: 12.						٠.		
Sample Information: Sample Collection Time: 1:20 Sample Collected Using: IFfor Base Order of Sampling 1 2 3 4 5 Sample Parameters 8260 8270 F1-PRO pile mells Sample Containers 2x40x 1x500x 2x1000x 1x500x Sample Containers PH of Preserved Samples HCL CZ UNP HSQ CZ MNO3 CZ	Field Pa	rameters			\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.			
Order of Sampling 1 2 3 4 5 Sample Parameters 8260 8270 FI-PRO RICH Mells Sample Containers 2x York 1x 1000 2x 10					Total g	allons purged	: 26	
Sample Parameters 8260 8270 FI-PRO RICH Mells Sample Containers VINIS SHIS Cambe) Phos Preserved Samples FIL CZ VINP HoSay CZ HND3 CZ	Purge Stop Tim	e: <u>/2 //</u>	: 20				•	
Sample Parameters 8260 8270 81-PRO 824 mells Sample Containers 7x 10x 10x 10x 10x 10x 10x 10x 10x 10x 10	Purge Stop Tim	e: <u>/2 //</u>	: 20				•	
Sample Containers ZxYol /x/000l Zx1000l 1x500l Shrs (ambe) Chris (amsex) poly PH of Preserved Samples HCL CZ Up HoSay CZ HNO3 CZ	Purge Stop Tim Sample Informa Sample Collecti	tion:	1	2	Sample	Collected Us	sing: <u>10</u>	
pH of Preserved Samples HCL CZ UNP HoSay CZ HNO3 CZ	Purge Stop Tim Sample Informa Sample Collecti Order of Samp	tion: ion Time: _/Z	1		Sample 3	Collected Us	sing: <u>10</u>	
	Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Param	tion: ion Time: // pling neters	1 8260 2×402	8270	Sample 3 FI-PRO 2x 10000L	Collected Us 4 14 22 22 22 22 22 22 22 22	sing: <u>10</u>	
Additional Preservative	Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Param Sample Conta	tion: ion Time: // pling neters iners	1 8260 2×402	8270 1×1000£	Sample 3 FI-PRO Zx 10000L Ghrs (bosse)	Collected Us 4 pces mells 1×5001	sing: <u>10</u>	
	Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Param Sample Conta	tion: ion Time: // pling neters iners	2560 2x40xl Vinls	8270 1x 1000 l 61x55 (Amber)	Sample 3 FI-PRO Zx 10000L Ghrs (bosse)	Collected Us 4 pces mells 1×5001	sing: <u>10</u>	
	Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Param Sample Conta pH of Preserv Additional Preserv	tion: ion Time: // pling neters iners red Samples eservative	1 8260 2x40x Vinis HCL <2	8270 1x 1000 & Glass Cambe) UNT	Sample 3 FI-PRO Zx 10000L GHAS GARGE H-Say <2	Collected Us A A A A A A A A A A A A A	sing: /	Flow Base
The state of the s	Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Param Sample Conta pH of Preserv Additional Product noted:	tion: ion Time: // pling neters iners red Samples eservative	BZGO ZXYOL VILLS HCL ZZ Odor noted	8270 1×1000 & Glass Cambe) UNP	Sample 3 FI-PRO Zx 10000L GHAS GARGE H-Say <2	Collected Us 4 pces mells 1×5001	sing: /	
1100,000 1101001	Purge Stop Tim Sample Informa Sample Collecti Order of Sample Sample Param Sample Conta pH of Preserv Additional Product noted: Comments:	tion: ion Time: 17 pling neters iners red Samples reservative	BZGO ZXYOL VILLS HCL ZZ Odor noted	8270 1×1000 & Glass Cambe) UNP	Sample 3 FI-PRO Zx 10000L GHAS GARGE H-Say <2	Collected Us A A A A A A A A A A A A A	sing: /	Flow Base
Comments: Jahle Thw-2 South of Fish throo was p. p. Field Instrument Information: Instruments Used: MA Time/Date:	Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Param Sample Conta pH of Preserv Additional Product noted: Comments: 1 Field Instruments Us	tion: ion Time:	BZGO ZXYON ZXYON VINIS HCL ZZ Odor noted NW-Z Sout	8270 1×1000 & Glass Cambe) UNP Slylet Petr	Sample 3 FI-PRO ZX 100001 EHRES HASAY <2 Color: #4100 Ne	Collected Us A A CES POLY AND 3 CZ Milky A P. P.	sing: 10	How Base
Comments: The Two-2 Sout of Full throo was P. P. Field Instrument Information: Instruments Used: Calibration: pH 4.0 7.0 10.0 Conductive y: Time/Date:	Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Param Sample Conta pH of Preserv Additional Preserv Product noted: Comments: Field Instrume Instruments Us Calibration: p	tion: tion Time:	Description of the second of t	8270 1x 1000 l GHSS Gmbe) Jup Slylyt Petrology of Full	Sample 3 FI-PRO ZX 100001 EMES MASSE H-Say <2 Color: #100 Ne	Collected Us A A A A A A A A A A A A A	sing: 10	How Base
Comments: Two Two Two two two two p.p. Field Instrument Information: Instruments Used: MA Calibration: pH 4.0 7.0 10.0 Conduction y: Time/Date: Ambient Conditions: Warn (80%) overcorst who 8-/2 west	Purge Stop Tim Sample Informa Sample Collecti Order of Sample Sample Param Sample Conta pH of Preserv Additional Product noted: Comments: 1 Field Instrumet Instruments Us Calibration: p Ambient Cond	tion: ion Time: 12 pling neters iners red Samples reservative Note the Two t	Description	Sylf Pets 10.0 10.0 10.0 10.0 10.0	Sample 3 FI-PRO Zx 100001 Ethes Bosse H-Say <2 Color: #100 Ne Conduction 0 B-12 2	Collected Us A A CES PCRA Mehls IX 5001 AND3 CZ Milky APP P. PD	sing: 10	How Base
Comments: Two Two 2 South of Full throo war P. P. Field Instrument Information: Instruments Used: MA Calibration: pH 4.0 7.0 10.0 Conduction y: Time/Date:	Purge Stop Tim Sample Informa Sample Collecti Order of Sample Sample Param Sample Conta pH of Preserv Additional Product noted: Comments: 1 Field Instrumet Instruments Us Calibration: p Ambient Cond	tion: ion Time: 12 pling neters iners red Samples reservative Note the Two t	Description	Sylf Pets 10.0 10.0 10.0 10.0 10.0	Sample 3 FI-PRO Zx 100001 Ethes Bosse H-Say <2 Color: #100 Ne Conduction 0 B-12 2	Collected Us A A CES PCRA Mehls IX 5001 AND3 CZ Milky APP P. PD	sing: 10	How Base

Date: 4/25	 00	es	Well Sa	ampling Lo	g Project No	mher / 1 ton	Clasure
Date: 4/25/ Site Location: Well I.D	Maypart Noul	Station 7	vel Depot	- Toules	97 100	/0/	COOLE
Well I.D	De Sea Level: To	pth of well (from TOC) (TOC)	10.60	ft Dep	oth to water_	8.90 ft
Well Diameter	in. Wel	I Construction	onft.	in. slotted	screen Ca	ater Lever asing Materia	1 2/c.
Well Volume _).21 (10.3)gal	Well Vol	= <u> 170</u> H	×/	$\frac{1}{2} \times 0.163 = \frac{1}{2}$	<u>Ø21</u> gal/	l pe
Well Type:	upgradient	downgradi	ent hot	<u>.70</u> /DIW	/= 1.70	π	other
Longitude	Latitu	de		. op 0.	***************************************	*************************************	otner
Purge Informati Purging eqpt:	8 Paul 01	2 Como		70	. ຄໍ	7 11	
Purging eqpt: Purge Start Tim	e: 12:34	<u> </u>		Well Ro	charge Rat	Z gal/1 e: <u>&••</u> 2	min.
Volume	Gallons	pН	Conducti	vity Tem	ıp. (°C)	Time	Other
(0.3						
Z	0.6		21660	100	- Wola	<u>~</u>	
3	0.9	()	121660	war 3			
4	1.2	/					
5	1.5						
					1		
			·				
Field Pa	rameters						
	e: <u>[</u> [군: 숙궁	<u> </u>		Total	gallons pur	ged:	
Sample Informa Sample Collecti	tion: on Time: <u>[7</u>	:45		Sampl	e Collected	Using: 10	For Baster
Order of Samp	lling	1	2	3	4	1 5	6
Sample Parame					total (85)		·
Sample Contai		8260 2×4026	8270 1×1000	FI-PRO Zx 1000ml	RCRA Meh.		
pH of Preserve		Vis	614-55 Cambe)	Hosay 22	poly poly		
Additional Pre		HCL CZ	Jup	125-4 -6	1,103 C	2	
Additional Fig.	SOLVALLYO		1				
Product noted:	Nove	Odor noted:		Color:	Mostly cl.	1 Turbidi	ty: LOU
Comments: Field Instrumen		.w-3	@Midpon	.T. Reful	- Tal	# 100 +	70)
Instruments Use	,						
Calibration: pH			10.0	Conducti		Time/D	ate:
Ambient Condit	(name/title):		prince with	0 8-12 W	Scienti	c F	
		14441) 110	100				
		//	->/			1. A	
Sample delivere	d to laboratory	bÿ: <u>НАЛО</u>	- Wellver El		Mu	Mah	
					40	' ' ')	
						,	

LIMITED TANK CLOSURE REPORT ABOVEGROUND STORAGE TANK NO. 201 RELIABLE MECHANICAL JOB MAYPORT NAVAL STATION MAYPORT, FLORIDA



LIMITED TANK CLOSURE REPORT ABOVEGROUND STORAGE TANK NO. 201 RELIABLE MECHANICAL JOB MAYPORT NAVAL STATION MAYPORT, FLORIDA

PREPARED FOR:

Environmental Recovery Group, Inc. 251 Levy Road Atlantic Beach, Florida 32233-0569 ERG Job Number 2464

ROICC JAX AREA

PREPARED BY:

Aerostar Environmental Services, Inc. 11200 St. Johns Industrial Parkway, Suite 1 Jacksonville, Florida 32246 (904) 565-2820

TABLE OF CONTENTS

SECTION	PA	<u>GE</u>
1.0 INTROI	UCTION	1
2.0 STORA	E TANK REMOVAL PROCEDURES	1
3.0 ENVIRO	NMENTAL MONITORING ACTIVITIES	2
4.0 RECOM	MENDATIONS	4
	TABLES	
TABLE 1	Soil Screening Summary	
TABLE 2	Soil Analytical Summary	
TABLE 3	Groundwater Analytical Summary	
	FIGURES	
FIGURE 1	Topographic Site Location Map	
FIGURE 2	Site Plan and Sampling Locations	
	APPENDICES	
APPENDIX A	Limited Closure Summary Report	
APPENDIX B	Storage Tank Facility Registration Form	
APPENDIX C	Photographic Documentation	
APPENDIX D	Laboratory Analytical Reports	

1.0 INTRODUCTION

Aerostar Environmental Services, Inc. (AEROSTAR) provided environmental services during closure of an aboveground storage tank (AST) system designated as Tank Number 201, located at the Mayport Naval Station, Mayport, Duval County, Florida, Florida FDEP ID #168626008; hereafter referred to as the site. Tank Number 201 provided jet fuel to aircraft carriers stationed at Mayport Naval Station. A topographic map showing the location of the site is included as Figure 1. Demolition and closure activities for the AST, including tasking subcontractors, were managed by Reliable Mechanical, Inc. (RMI) of Louisville, Kentucky; the prime contractor on the MILCON project. Environmental assessment activities were conducted by AEROSTAR personnel in accordance with the guidelines established in the Storage Tank System Closure Assessment Requirements and following closure specifications provided by RMI. Based on the results of this investigation, further assessment is recommended for the area of the former AST system. The following sections present the AST system location and description, closure procedures and results of the environmental monitoring activities.

2.0 STORAGE TANK REMOVAL PROCEDURES

The former AST system was located approximately 200 feet south of the St. Johns River on the Mayport Naval Station and consisted of a 590,000-gallon steel tank containing JP-5 jet fuel. The AST was constructed of welded steel sheets on a one-foot thick round concrete pad approximately 86 feet in diameter. Information obtained by AEROSTAR indicated that the AST was installed in 1960. A site plan showing the location of the former AST system is included as Figure 2.

The AST system was removed between October 12 and October 20, 2000 by Realco Recycling and Wrecking Company subcontracted by Reliable Mechanical, Inc., the prime contractor in charge of the MILCON project. Prior to demolition, the remaining contents of Tank Number 201 were transferred to Tank Number 202 located at the site. The interior of the tank was cleaned by Environmental Recovery Group, Inc. (ERG) prior to transportation and off-site disposal of the sludge by Waste Reduction Systems, Inc. (WRS). The steel roof and walls of the tank were demolished and properly disposed of leaving only the steel tank bottom (approximately 0.5-inches thick) and the one-foot thick concrete pad. Copies of the Limited Closure Summary Report and the Storage Tank

Facility Registration Form are included in Appendices A and B, respectively. Photographic documentation of the site conditions during soil and groundwater sampling activities is included in Appendix C.

3.0 ENVIRONMENTAL MONITORING ACTIVITIES

On October 23, 2000, five soil borings (TB-1 through TB-5) were advanced in the former tank bottom and eight soil borings (PB-1 through PB-8) were advanced around the perimeter of the former tank to evaluate soil quality. Soil samples were collected during boring advancement at one-foot intervals from approximately one foot below land surface (BLS) to approximately four feet BLS using a three-inch diameter, stainless steel hand auger. The soil samples were screened with a calibrated portable Heath Tech Porta-FID IIITM Organic Vapor Analyzer with a Flame Ionization Detector (OVA-FID). Each sample was also screened with a charcoal filter to differentiate the instrument's response to naturally occurring methane vapors. The difference between the readings is the vapor concentration attributed to petroleum hydrocarbons. In addition to the OVA-FID screening, each sample was inspected for signs of hydrocarbon staining and unusual odors. Soil sample collection and screening activities were conducted in accordance with AEROSTAR's FDEP-approved Comprehensive Quality Assurance Project Plan (COAPP) #940023G.

Hydrocarbon vapors were detected above the State target level of 10 parts per million (ppm), established as a "positive field screening result" in Chapter 62-770, Florida Administrative Code (FAC). Maximum vapor concentrations detected in soil samples collected from PB-1, PB-7, and PB-8 ranged from 900 ppm to 2600 ppm. Hydrocarbon vapors detected in soil samples collected from borings TB-1 through TB-5 and PB-2 through PB-6 ranged from below detectable limits to 8 ppm. Results of the soil vapor screening are included in Table 1. The soil sample locations are shown in Figure 2.

On October 23, 2000, soil samples exhibiting the highest OVA responses were collected for laboratory analyses by Environmental Conservation Laboratories, Inc. (Enco) in Jacksonville, Florida. The samples were analyzed for the parameters listed in EPA Method 5035/8021A for Volatile Organic Aromatics (VOAs), EPA Method 8310 for Polynuclear Aromatic Hydrocarbons

(PAHs), and Total Recoverable Petroleum Hydrocarbons (TRPHs) by the FL-PRO Method. Soil sampling activities were conducted in accordance with AEROSTAR's FDEP-approved CQAPP #940023G.

Soil samples collected from PB-7 showed hydrocarbon concentrations of naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, and TRPH of 3.1 milligrams per kilogram (mg/kg), 8.8 mg/kg, 13 mg/kg, and 5,600 mg/kg, respectively. The leachability target levels established in Chapter 62-777, FAC for naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, and TRPH are 1.7 mg/kg, 2.2 mg/kg, 6.1 mg/kg, and 340 mg/kg, respectively. The TRPH concentrations detected in samples collected from PB-7 were also above the Residential and Commercial/Industrial Direct Exposure Limits of 340 mg/kg and 2,500 mg/kg, respectively. Analytical results from the remaining soil sampling points were either below the laboratory detection limits or below all State target levels. Soil analytical results are summarized in Table 2. Laboratory analytical reports are included in Appendix D.

On October 24, 2000, temporary wells were installed and groundwater samples were collected at the soil sampling locations shown in Figure 2. The temporary wells were installed approximately 6.5 to 7.0 feet BLS using a three-inch diameter, stainless steel hand auger. The water table surface was encountered at approximately 4.5 feet BLS during the assessment activities. Groundwater samples were collected from TB-1 through TB-5 and PB-1 through PB-8 for analysis of the parameters listed in EPA Method 601 for volatile organic compounds (VOCs), EPA Method 602 for VOAs, EPA Method 610 for PAHs, EPA Method 504 for ethylene dibromide, TRPH by the FL-PRO Method, EPA Method 200.7 for total lead. The samples were collected using disposable bailers after purging each well of five well volumes to ensure representative samples of actual aquifer conditions. Groundwater sampling activities were conducted in accordance with AEROSTAR's FDEP-approved CQAPP #940023G.

Groundwater samples collected from perimeter sampling points PB-1, PB-3, and PB-8 showed hydrocarbons concentrations which exceed State target levels established in Chapter 62-777, FAC.

Analytical results from the remaining groundwater sampling points were either below the laboratory detection limits or below all State target levels. Groundwater analytical results with corresponding State target levels are summarized in Table 3. The concentrations which exceed target levels are highlighted in Table 3. Laboratory analytical reports are included in Appendix D.

4.0 RECOMMENDATIONS

Petroleum hydrocarbon concentrations were detected above the State target levels established in Chapter 62-777, FAC, in the groundwater and soil samples collected for this investigation. Based on the results of the tank closure, further assessment activities are recommended for the area of the former AST system.

TABLES

TABLE 1: SOIL SCREENING SUMMARY

Facility Name: Reliable Mech./Mayport #2464 Facility ID No: 168626008

	SAMPLE			OVA SO	REENING RE	ESULTS	
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (FBLS)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	COMMENTS
TB-1	10/23/00	~4.5	1	NA NA	NA	NA NA	TB-1 = Tank Bottom Sampling Location 1
	10, 20, 00	1.0	2	4	.,	4	
			3	6	••	6	
			4	6		6	
TB-2	10/23/00	-4.5	1	NA	NA	NA	
	10, 20, 00		2	5		5	
			3	ND		ND	
		 	4	6	••	6	
TB-3	10/23/00	~4.5	1	NA	NA	NA NA	
16-3	10/23/00	7.5	2	ND		ND	
			3	ND		ND	4.4.004.0000000000000000000000000000000
			4	6		6	
TB-4	10/23/00	~4.5	1	NA NA	NA	NA	
10.4	10/25/00	7.5	2	ND		ND	
			3	ND		ND	
			4	ND		ND	
TB-5	10/23/00	~4.5	1	NA NA	NA	NA NA	And the state of t
10.0	10/23/00	74.5	2	6		6	
			3	1		1	
			·				
DD 1	10,000,000	A F	4	8	**	8	DD 1 Designator Designs 1
PB-1	10/23/00	~4.5	1	ND	**	ND	PB-1 = Perimeter Boring 1
***************************************			2	2		2	
	1		3	15	2	13	
	10,000,000	1	4	900	ND	900	
PB-2	10/23/00	~4.5	1	ND		ND	
			2	7		7	
			3	ND		ND	
			4	ND	**	ND	
PB-3	10/23/00	~4.0	1	ND	••	ND	
			2	ND	**	ND	
			3	ND		ND	
			3.5	5		5	
PB-4	10/23/00	~4.5	1	ND	••	ND	
			2	ND		ND	
			3	ND		ND	
			4	ND		ND	
PB-5	10/23/00	4.5	1	ND	••	ND	
			2	ND	• •	ND	
***************************************			3	ND		ND	
			4	ND		ND	
PB-6	10/23/00	~4.5	1	ND		ND	
,			2	ND		ND	
			3	ND		ND	
			1	ND		ND	
PB-7	10/23/00	~4.5	1	1200	ND	1200	
			2	2050	ND	2050	
			3	2300	ND	2300	
			4	2600	ND	2600	
PB-8	10/23/00	~4.5	1	2400	ND	2400	
			2	2550	ND	2550	
			3	1500	ND	1500	
			4	2300	ND	2300	

TABLE 2: SOIL ANALYTICAL SUMMARY

Facility Name: Reliable Mech./Mayport #2464

68626008	
Number: 1	
ility ID	
Fac	

	Sample			Avo													
Sample	Date	Depth	Sample	Net OVA			Ethyl-	Total		Naph-	1-Methyl-	2-Methyl-		Fluor-			
Ω	Collected	þ	Interval	Reading	Benzene	Toluene	penzene	Xylenes	MTBE	thalene	napthalene	napthalene	Fluorene	anthene	Pyrene	TRPH	
		Water (ft)	(sq))	(mdd)	(qdd)	(qdd)	(qdd)	(qdd)	(qdd)	(mdd)	(mdd)	(mdd)	(mdd)	(mdd)	(mcd)	(mdd)	Comments
Residenita	Residenital Direct Exposure Limits	sure Limits			1.1	380	1100	2900	3200	40	89	08	2200	2900	2200	340	
Commerci	Commercial Direct Exposure Limits	sure Limits			1.6	2600	8400	40000	22000	270	470	260	00087	48000	37000	2500	
Leachabilin	eachability Groundwater Limits	er Limits			0.007	0.5	9.0	0.2	0.2	1.7	2.2	6.1	160	1200	880	340	
TB-1	10/23/00	~4.5	4	9	BDL	7G8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	Dil. x 1.15 (VOAs)
TB-2	10/23/00	-4.5	4	9	BDL	0.0023	0.0031	0.0043	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
TB-3	10/23/00	~4.5	7	9	BDL	BDL	BDL	BDL	BDL	BOL	BDL	BDL	BDL	BDL	EDL	BDL	Dil. x 1.16 (VOAs)
TB-4	10/23/00	-4.5	7	Q	BDL	BDL	BDL	BDL	BDL	BOL	BDL	BDL	BDL	0.015	0.014	BDL	Dif. x 1.13 (VOAs)
TB-5	10/23/00	-4.5	3.5	80	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	EDL	BDL	Dil. x 1.21 (VOAs)
PB-1	10/23/00	-4.5	7	006	BDL	BDL	BDL	BDL	BDL	BDL	0.32	0.1	0.022	BDL	690.0	300	Dif. x 100 (VOAs)
PB-2	10/23/00	-4.5	2	7	BDL	BDL	BDL	BDL	BDL	BOL	BDL	BDL	0.047	0.14	0.11	BDL	Dil. x 1.21 (VOAs)
PB-3	10/23/00	-4.0	3.5	5	BDL	108	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	EDL	BDL	Dif. x 1.18 (VOAs)
PB-4	10/23/00	-4.5	7	S	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.066	0.059	BDL	Dil. x 1.04 (VOAs)
PB-5	10/23/00	-4.5	7	Q	BDL	BDL	1G8	BDL	BDL	BOL	BDL	BDL	BDL	0.37	0.36	44	Dil. x 1.12 (VOAs)
PB-6	10/23/00	-4.5	7	QN	BDL	108	BDL	BDL	BDL	BDL	BDL	BOL	BDL	BD(.	BDL	BDL	Dil. x 1.18 (VOAs)
PB-7	10/23/00	-4.5	7	2600	BDL	BDL	BDL	BDL	BDL	3.1	8.8	13	0.32	2	2.2	2600	Dil. y 100 (VOAs)/x 10 (SVOCs)
PB.8	10/23/00	-4.5	2	2550	HDF.	BDL	BDL	BDL	BDL	0.16	2.2	1.4	0.89	5	4.5	1800	Dif. x 1.03 (VOAs)/ x 10 (SVOCs)

TABLE 3: GROUNDWATER LABORATORY ANALYTICAL SUMMARY

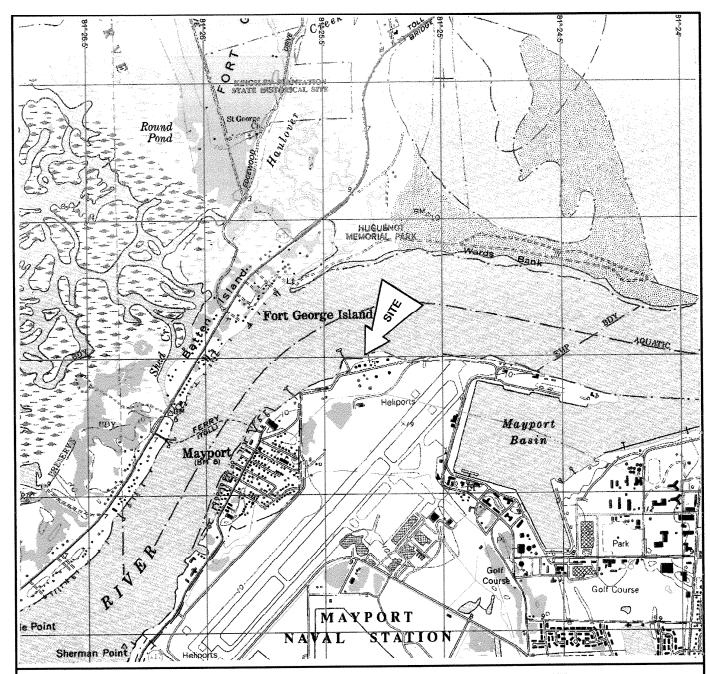
Facility Name: Reliable Mech./Mayport #2464

Facility ID No: 168626008

Not Analyzed = NA Below Detection Limits = BDL All results in parts per billion (ppb)

Particulum Date Earzene Tolerene Parcene Tolerene Parcene Tolerene Tolerene Parcene Tolerene Tole	Sa	Sample			Ethyl-	Total		Naph-	1-Methyl	1-Methyl 2-Methyl Acenaph- Acenaph-	Acenaph-	Acenaph-	Fluor-		Phenan- Anthra-	Anthra-				Benzo(a)		TRPH
1 4 46 30 20 20 20 20 210 20 20 20 20 20 20 20 20 20 20 20 20 20	ocation	Date	Benzene	Toluene	benzene	Xylenes	MTBE	ļ	napthalene	napthalene		thene	anthene	Fluorene	threne	cene	Pyrene	Chrysene	Lead	anthracene	EDB	mdd
BDL BDL <th></th> <th>And and the statement of the statement o</th> <th>-</th> <th>54</th> <th>30</th> <th>20</th> <th>20</th> <th></th> <th>20</th> <th>20</th> <th></th> <th>20</th> <th>280</th> <th>280</th> <th>210</th> <th>2100</th> <th>210</th> <th>4.8</th> <th>15</th> <th>0.2</th> <th>0.02</th> <th>2000</th>		And and the statement of the statement o	-	54	30	20	20		20	20		20	280	280	210	2100	210	4.8	15	0.2	0.02	2000
BDL BDL A,0 BDL BDL <td>TB-1</td> <td>10/24/00</td> <td>BDL</td> <td>7.0</td> <td>1G8</td> <td>BDL</td> <td>108</td>	TB-1	10/24/00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	7.0	1G8	BDL	108
BDL BDL <td>TB-2</td> <td>10/24/00</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>4.0</td> <td>BDL</td> <td>4.6</td> <td>2.1</td> <td>2.3</td> <td>BDL</td> <td>0.57</td> <td>1.9</td> <td>0.31</td> <td>2.8</td> <td>6.2</td> <td>1.3</td> <td>0.12</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>0.80</td>	TB-2	10/24/00	BDL	BDL	BDL	4.0	BDL	4.6	2.1	2.3	BDL	0.57	1.9	0.31	2.8	6.2	1.3	0.12	BDL	BDL	BDL	0.80
BDL BDL <td>TB.3</td> <td>10/24/00</td> <td>BDL</td>	TB.3	10/24/00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BDL BDL <td>TB-4</td> <td>10/24/00</td> <td>8DL</td> <td>ВР</td> <td>BDL</td> <td><u>B</u></td> <td>5.0</td> <td>BDL</td> <td>BDL</td> <td>BDL</td>	TB-4	10/24/00	8DL	ВР	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<u>B</u>	5.0	BDL	BDL	BDL
BDL BDL <td>TB-5</td> <td>10/24/00</td> <td>BDL</td> <td>0.23</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>0.14</td> <td>80F</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td>	TB-5	10/24/00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.23	BDL	BDL	BDL	0.14	80F	BDL	BDL	BDL	BDL
BDL BDL <td>98.1</td> <td>10/24/00</td> <td>8DL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>170ª</td> <td>300</td> <td>330</td> <td>BDL</td> <td>3.6</td> <td>8.0</td> <td>4.4</td> <td>BDL</td> <td>BDL</td> <td>3.0</td> <td>BDF</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>15°</td>	98.1	10/24/00	8DL	BDL	BDL	BDL	BDL	170ª	300	330	BDL	3.6	8.0	4.4	BDL	BDL	3.0	BDF	BDL	BDL	BDL	15°
BDL BDL <td>PB-2</td> <td>10/24/00</td> <td>3DF</td> <td>BDL</td> <td>BDF</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td>	PB-2	10/24/00	3DF	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDF	BDL	BDL	BDL	BDL
BDL BDL <td>9.3 3</td> <td>10/24/00</td> <td>2.2</td> <td>80</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BOL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>0.23</td> <td>BCL</td> <td>BDL</td> <td>BDL</td> <td>0.21</td> <td>TGB</td> <td>BDL</td> <td>BDL</td> <td>9DL</td> <td>BDL</td>	9.3 3	10/24/00	2.2	80	BDL	BDL	BDL	BOL	BDL	BDL	BDL	BDL	0.23	BCL	BDL	BDL	0.21	TGB	BDL	BDL	9DL	BDL
BDL BDL <td>2B.4</td> <td>10/24/00</td> <td>3DF</td> <td>BDL</td> <td>BCL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td>	2B.4	10/24/00	3DF	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BCL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BDL BDL <td>2B.5</td> <td>10/24/00</td> <td>30[</td> <td>g</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BEL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td>	2B.5	10/24/00	30[g	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BEL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BDL BDL <td>9.B.6</td> <td>10/24/00</td> <td>3DL</td> <td>BDL</td> <td>BCL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td>	9.B.6	10/24/00	3DL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BCL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BDL BDL BDL BDL 1000 ⁴ 1500 ⁴ 2200 ⁴ BDL 39 170 ⁴ 4g ⁴ BDL BDL 110 22 BDL 31 BDL BDL 110 110 110 110 110 110 110 110 110 11	B-7	10/24/00	BDL ^c	8DL°	BDL°	BDL°	BDL	1.1	37	17	1.2	2.7	5.3	1.5	BDL	BDL	4.1	0.53	BDL	0.77	BDL	8.8 _b
Results determined from 1.10 dilution Results determined from 1.2 dilution Results determined from 1.2 dilution Results determined from 1.5 dilution	ထို ဇာ	10/24/00	30	BDF	BDL	BDL	BDL	1000ء	1500 ^d	22004	BDL	39	170 ^d	46 _d	BDL	BDL	110	22	BDL	31	BDL	3204
Fesults determined from 1:10 dilution Results determined from 1:2 dilution Results determined from 1:5 dilution		1.00 mm of 10.00 mm or 10.00 m																				
Results determined from 1.2 dilution Results determined from 1.5 dilution	Results c	l tetermined from	1:10 dilution				***************************************	-														
Results determined from 1.55 Glubion	Results o	determined from	1:2 dilution																			
	Results c	determined from	1:5 dilution																			

FIGURES



MAYPORT QUADRANGLE

30081-B5-TF-024

PHOTOREVISED 1982

DMA 4744 IV NW-SERIES V847

7.5 MINUTE SERIES (TOPOGRAPHIC)

CONTOUR INTERVAL 10 FEET





NATIONAL GEODETIC VERTICAL DATUM OF 1929

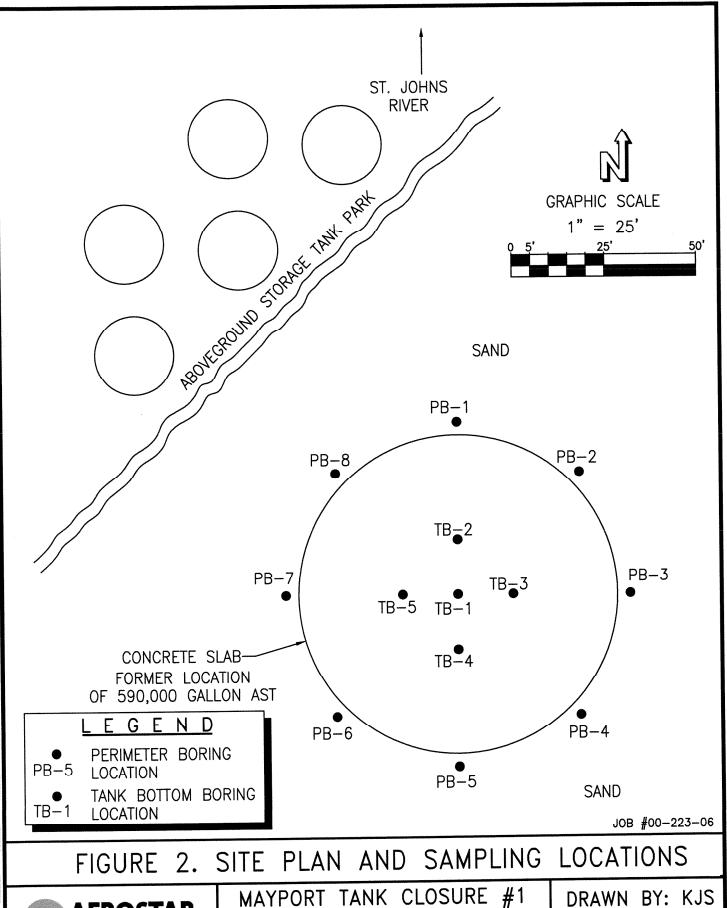
FIGURE 1 TOPOGRAPHIC SITE LOCATION MAP



MAYPORT TANK CLOSURE #1
MAYPORT NAVAL STATION

DRAWN BY: JJR

REFERENCE: MAP OF MAYPORT, FLORIDA PREPARED BY: U. S. GEOLOGICAL SURVEY





MAYPORT NAVAL AIR STATION JACKSONVILLE, FLORIDA

DRAWN BY: KJS

DATE: 11/02/00

APPENDIX A LIMITED CLOSURE SUMMARY REPORT



Department of Environmental Protection

DEP Form 62-761.900(8)
Form Title: Limited Closure
Summary Report:
Effective Date: July 13, 1998

n Towers Office Building ♦ 2600 Blair Stone Road ♦ Tallahassee, Florida 32399-2400

Limited Closure Summary Report

This form is required for facilities that have sites with documented contamination requiring a site assessment in accordance with Chapter 62-770, F.A.C. This includes those facilities that are eligible for the Early Detection Incentive Program (EDI), the Florida Petroleum Liability and Restoration Insurance Program (FPLRIP), and the Petroleum Cleanup Participation Program (PCPP), pursuant to Sections 376.3071 and 376.3072, F.S. Documentation of procedures followed, and results obtained during closure shall be reported in this form, along with any attachments. This form shall be submitted to the County within 60 days of completion of the closure in accordance with Section A of the "Storage Tank System Closure Assessment Requirements."

Complete All Applicable Blanks. Please Print or Type

General Information	1						
Date: 10/25/00	FDEP Facility ID	Number:	168626008		County:]	DUVAL	
Facility Name _MAYPO	RT NAVAL STAT	ION		Facility Te	lephone #: ()	
Facility Address:							
Owner or Operator Name:				Owner/Ope	erator phone #	#: () <u> </u>	
Mailing Address:							
Storage Tank System	n Closure Info	rmation					
1. Were the storage tanks(s): (Check one or b	oth)					
Aboveground	(=). (==================================		Under	ground			
2. General System Information	on						
Types of Products Stored:		UEL	Number of	Tanks: Of	NE (1)	Age(s) of Tan ~40YRS.	ks:
3. Was the Limited Closur				(check one o	r more)		
☐ Tank Systems Removal?		tainment Insta				Non-Regulated S	ubstance?
Tank Systems Closed in Pl		Liners Install				rier Installation?	
☐ Piping Sump Installation?	☐ Secondar	y Containmen	t Installation?	☐ U Other? (please explain)	***************************************	
4. Please Check Yes or No							
a. Was there previously re				yes, was		☐ Yes	□No
A Discharge Rep						☐Yes	□ No
2. An investigation			Rule 62-761.8	20, F.A.C.?		☐ Yes	□ No
b. Is the depth to groundy						☐ Yes	│ □ No
c. Are there monitoring w		, were they				Yes	□ No
1. Groundwater mo				····		☐ Yes	□ No
2. Vapor monitorin						☐ Yes	□ No
3. Used for closure		ng?				│ ☐ Yes	│ □ No
4. Properly closed?						☐ Yes	│ □ No
5. Retained for site a						Yes	U No
d. If tanks were replaced,	were contaminated	l soils returne	ed to the tank	excavation?		☐ Yes	∐ No
Signature of owner or o	perator	Signature of	person perfor	ming	Name o	of person perfor	ming
-	-		losure Assessr			d Closure Asses	_
(date)	(date)			Affilia	ition		
		Printed o	on recycled pap	er			



Florida Department of Environmental Protection Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

DEP Form # 62-761.900(2)								
Form Title Storage Tank Registration Form								
Effective Date: July 13, 1998								
DEP Application No.								
(Filled in by DEP)								

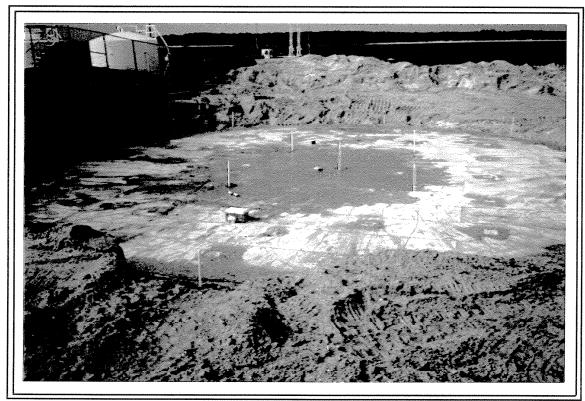
Storage Tank Facility Registration Form

Submit a completed form for the facility when registration of storage tanks or compression vessels is required by Chapter 376.303, Florida Statutes

Please review Registration Instructions before completing the form

Please che	e check all that apply [] New Registration [] New Own											
] Facility Info	Update/Correc	ction []	Owner Info	Update/Correct	ion	[] Tank	Info Update	e/Correction	
A FACILI	TY INFORM	ATION	County: DU	IV/A1			T DED Essi	in In	1000000			
A. I AOILI	Ο	A11014	County. Do				DEP Facil	ity iD.	16862600	J0		
	Facility Name: MAYPORT NAVAL STATION											
	acility Address: City: Jacksonville										Zip:	
											Business Phone: (_	
Facility Typ	e(s):	NAICS Code: Financial Responsibility:										
24 Hour E	mergency C	ontact:								Eme	ergency Phone:(_	
B. RESPO	NSIBLE PE	RSON IN facility lo	IFORMATION - ocation named a	Identify Indivintation	dual(s) or Buide addition	usiness(es) al informa	responsible for s tion in an attach	torage tan	k manag ecessary	ement, fueli '.	ng operations, and/	
Name:				***************************************	*. ***		Facility - Responsible Person Relation Type: Effective Date					
Mail address:						[√] Facility Account Owner (pays fees)						
City, ST, Zip:						Facility Account Owner information must be provided when the						
Contact:	Contact:						facility contains active (in-use) storage tanks on site.					
Telephone:						STCM Account Number (if known)						
Identify other appropriate facility relationships for this party: [] Facility Owner/Ope												
<u> </u>	-,,,-,-				1 1 dointy		Statos [] Tie	perty Own		Storage 1	ank Owner	
Name:	Name: Other owner, relationship type(s) Effective Date										Effective Date	
Mail address:							[] Facility Owner/Operator					
City, ST, Zip:							[] Property Owner					
Contact:							[] Storage Tank Owner					
Telephone:						[] Other:						
•							į j Otilei.					
C. TANK/V	ESSEL INFO	RMATIC	N - Complete	one row for e	ach storage	tank or c	ompression ves	sel systen	n located	l at this fac	ility.	
Tank ID								,				
1	1/V T	A/U A	Capacity 590000gai	Installed 1960	Content	Status B	/Effective Date 10/00	Constru		Piping	Monitoring	
	<u> </u>		oocoogai	1300	1		10/00					
										†		
						_				<u> </u>	_	
										-		
					1			L	***************************************			
Certified Co	ntractor (per	forming t	ank installation	or removal): _	······		[DBPR Lice	nse No.:			
Registratio	n Certification	on: 1	o the best of n	ny knowledge	e and belief	, all inform	ation submitted	on this fo	orm is tru	ue, accurate	e, and complete.	
Printed Name & Title Signature								· ·		Date		
DEP 62-761.900	• •	A1	-18:									
7825 Bayrneadows Way, 3319 Maguire Blvd., 3804 Coconut Palm Drive 400 North Congress Ave., 2295 Victoria Ave., 2796 O Suite B200 Suite 232 Suite 232 Suite 364 Suite 26								Marathon Branch Office 2796 Overseas Hwy., Suite 221				
850-595-8360		Jacksor 904-448	nville, FL 32256 3-4300	Orlando, FL 32 407-894-7555	803 Tampa, 813-74-	FL 33619 4-6100	W Palm Beach 561-681-6600	, FL 33416	Fort Myers, 941-332-69	FL 33901	Marathon, FL 33050 305-289-2310	

APPENDIX C PHOTOGRAPHIC DOCUMENTATION



1) Looking north across tank bottom showing soil/groundwater sampling points.



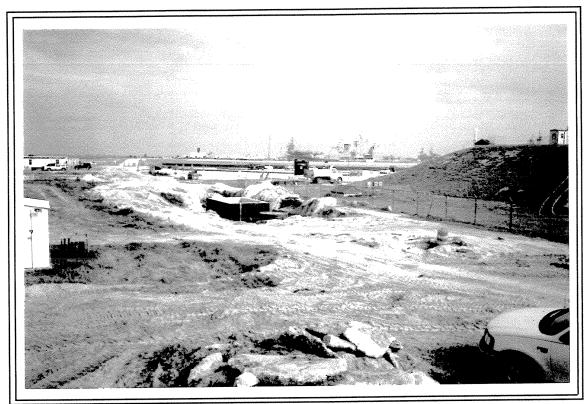
2) Looking northwest at 20,000-gallon ASTs containing lube oil.



3) Looking south across tank bottom.



4) Looking southeast at Tank Number 202 containing JP-5 jet fuel.



5) Looking east with Mayport Basin in background.



6) View of steel tank bottom and concrete pad at sampling location TB-4.

APPENDIX D LABORATORY ANALYTICAL REPORTS

ADDRESS: 251 Levy Road

DATE SUBMITTED: October 25, 2000

Atlantic Beach, FL 32233 DATE REPORTED: November 6, 2000

PAGE 1 OF 37

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT #: 2624

Reliable Mech. Tank Clsr

#1 - TB-1 @ 15:30 (10/24/00) #2 - TB-2 @ 16:30 (10/24/00) - TB-3 @ 14:15 (10/24/00) #3 - TB-4 @ 13:45 (10/24/00) #4 #5 - TB-5 @ 15:00 (10/24/00) - TB-6 @ 12:00 (10/25/00) #6 - PB-1 @ 12:45 (10/24/00) - PB-2 @ 12:15 (10/24/00) #7 #8 #9 - PB-3 @ 11:40 (10/24/00) - PB-4 @ 11:00 (10/24/00) #10 #11 - PB-5 @ 10:15 (10/24/00)#12 - PB-6 @ 09:30 (10/24/00)#13 - PB-7 @ 13:40 (10/24/00) - PB-8 @ 13:15 (10/24/00) #14

PROJECT MANAGER

Scott D. Martin

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 2 OF 37

RESULTS OF ANALYSIS

	EPA METHOD 601 - VOLATILE HALOCARBONS	<u>TB-1</u>	<u>TB-2</u>	Units
	Dichlorodifluoromethane Chloromethane	1.0 U 1.0 U	1.0 U 1.0 U	μg/L μg/L
	Vinyl Chloride Bromomethane Chloroethane	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
	Trichlorofluoromethane 1,1-Dichloroethene	2.0 U 1.0 U	2.0 U 1.0 U	μg/L μg/L
	Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
	c-1,2-Dichloroethene Chloroform	1.0 U 1.0 U	1.0 U 1.0 U	μg/L μg/L
1	1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
	Trichloroethene 1,2-Dichloropropane Bromodichloromethane	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
	<pre>c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane</pre>	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
	Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform	1.0 U 1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L
	1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L
	Surrogate: Bromofluorobenzene Date Analyzed	<pre>% RECOV 100 10/28/00</pre>	% RECOV 84 10/29/00	<u>LIMITS</u> 37-161
	Date Analyzed	10/28/00	10/29/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000
REFERENCE: 2624
PROJECT NAME: Reliable Mech. Tank

Clsr

PAGE 3 OF 37

EPA METHOD 602 - VOLATILE AROMATICS	<u>TB-1</u>	<u>TB-2</u>	Units
Methyl tert-butyl ether	2.0 U	2.0 U	μg/L
Benzene	1.0 U	1.0 U	μg/L
Toluene	1.0 U	1.0 U	μg/L
Chlorobenzene	1.0 U	1.0 U	μg/L
Ethylbenzene	1.0 U	1.0 U	μg/L
m-Xylene & p-Xylene	1.0 U	2.7	μg/L
o-Xylene	1.0 U	1.3	μg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene Date Analyzed	93	112	52-147
■ Date Analyzed	10/28/00	10/29/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000 REFERENCE: 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 4 OF 37

	EPA METHOD 8310 - PAH BY HPLC	<u>TB-1</u>	<u>TB-2</u>	<u>Units</u>
	Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene	0.50 U 1.0 U 1.0 U 1.0 U	4.6 1.0 U 2.1 2.3	μg/L μg/L μg/L μg/L
Secretarios (Constitution)	Acenaphthene Fluorene Phenanthrene Anthracene	0.50 U 0.10 U 1.0 U 0.20 U	0.57 0.31 2.8 6.2	μg/L μg/L μg/L μg/L
	Fluoranthene Pyrene Benzo(a)anthracene Chrysene	0.10 U 0.10 U 0.10 U 0.10 U	1.9 1.3 0.10 U 0.12	μg/L μg/L μg/L μg/L
j	Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene	0.10 U 0.10 U 0.10 U 0.10 U	0.10 U 0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L μg/L
	Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	0.10 U 0.10 U % RECOV	0.10 U 0.10 U % RECOV	μg/L μg/L LIMITS
	<u>Surrogate:</u> p-terphenyl Date Prepared Date Analyzed	96 10/31/00 11/01/00	103 10/31/00 11/02/00	43-148
	EPA METHOD 504 - ETHYLENE DIBROMIDE	TB-1	TB-2	Units
(anti-constant)	Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 11/01/00 11/02/00	0.020 U 11/01/00 11/02/00	µg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 5 OF 37

	TOTAL METALS	METHOD	<u>TB-1</u>	<u>TB-2</u>	Units
	Lead Date Analyzed	200.7	0.0070 I 10/31/00	0.0050 U 10/31/00	mg/L
	EPA METHOD FLPRO PETROL. RESIDUAL		<u>TB-1</u>	<u>TB-2</u>	Units
#F75;	Hydrocarbons (C8-	C40)	0.20 U	0.80	mg/L
	Surrogate: o-Terphenyl Date Prepared Date Analyzed		* RECOV 79 10/31/00 11/01/00	<pre>% RECOV 96 10/31/00 11/01/00</pre>	<u>LIMITS</u> 65-140

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL)
 and the Practical Quantitation Level (PQL).

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 6 OF 37

	EPA METHOD 601 -			
	VOLATILE HALOCARBONS	<u>TB-3</u>	<u>TB-4</u>	<u>Units</u>
VIII.	Dichlorodifluoromethane	1.0 U	1.0 U	μg/L
600	Chloromethane	1.0 U	1.0 U	μg/L
	Vinyl Chloride	1.0 U	1.0 U	μg/L
UES .	Bromomethane	1.0 U	1.0 U	μg/L
	Chloroethane	1.0 U	1.0 U	μg/L
	Trichlorofluoromethane	2.0 U	2.0 U	μg/L
	1,1-Dichloroethene	1.0 U	1.0 U	μg/L
	Methylene Chloride	1.0 U	1.0 U	μg/L
	t-1,2-Dichloroethene	1.0 U	1.0 U	hg/T
	1,1-Dichloroethane	1.0 U	1.0 U	μg/L
400000	c-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
	Chloroform	1.0 U	1.0 U	μg/L
]	1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
	Carbon Tetrachloride	1.0 U	1.0 U	μg/L
Madella	1,2-Dichloroethane	1.0 U	1.0 U	μg/L
	Trichloroethene	1.0 U	1.0 U	μg/L
	1,2-Dichloropropane	1.0 U	1.0 U	μg/L
	Bromodichloromethane	1.0 U	1.0 U	μg/L
	c-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
Kilogov	1,1,2-Trichloroethane	1.0 U	1.0 U	μg/L
(88)	Tetrachloroethene	1.0 U	1.0 U	μg/L
	Dibromochloromethane	1.0 U	1.0 U	μg/L
EID	Chlorobenzene	1.0 U	1.0 U	μg/L
econo-	Bromoform	1.0 U	1.0 U	μg/L
	1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
	Strome make			
	Surrogate:	% RECOV	% RECOV	LIMITS
	Bromofluorobenzene	101	105	37-161
	Date Analyzed	10/28/00	10/28/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE: 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 7 OF 37

	EPA METHOD 602 - VOLATILE AROMATICS	<u>TB-3</u>	<u>TB-4</u>	Units
	Methyl tert-butyl ether	2.0 U	2.0 U	µg/L
	Benzene	1.0 U	1.0 U	µg/L
	Toluene	1.0 U	1.0 U	μg/L
easer.	Chlorobenzene	1.0 U	1.0 U	μg/L
	Ethylbenzene	1.0 U	1.0 U	μq/L
	m-Xylene & p-Xylene	1.0 U	1.0 U	μg/L
	o-Xylene	1.0 U	1.0 U	μg/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	µg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
•	Surrogate:	% RECOV	% RECOV	LIMITS
j	Bromofluorobenzene	98	96	52-147
MESO (A)	Date Analyzed	10/28/00	10/28/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981
DATE REPORTED: November 6, 2000
REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 8 OF 37

proston.	EPA METHOD 8310 -			
	PAH BY HPLC	<u>TB-3</u>	<u>TB-4</u>	Units
	Naphthalene	0.50 U	0.50 U	µg/L
	Acenaphthylene	1.0 U	1.0 U	μg/L
	1-Methylnaphthalene	1.0 U	1.0 U	μg/L
	2-Methylnaphthalene	1.0 U	1.0 U	μg/L
600	Acenaphthene	0.50 U	0.50 U	μg/L
	Fluorene	0.10 U	0.10 U	µg/L
C3	Phenanthrene	1.0 U	1.0 U	μg/L
	Anthracene	0.20 U	0.20 U	μg/L
	Fluoranthene	0.10 U	0.10 U	μg/L
L	Pyrene	0.10 U	0.10 U	μg/L
	Benzo(a)anthracene	0.10 U	0.10 U	μg/L
	Chrysene	0.10 U	0.10 U	μg/L
	Benzo(b)fluoranthene	0.10 U	0.10 U	μg/L
200	Benzo(k)fluoranthene	0.10 U	0.10 U	μg/L
633	Benzo(a)pyrene	0.10 U	0.10 U	μg/L
	Dibenzo(a,h)anthracene	0.10 U	0.10 U	μg/L
	Benzo(g,h,i)perylene	0.10 U	0.10 U	μg/L
antitriim.	Indeno(1,2,3-cd)pyrene	0.10 U	0.10 U	μg/L
	Surrogate:	% RECOV	% RECOV	LIMITS
	p-terphenyl	115	93	43-148
m	Date Prepared	10/31/00	10/31/00	
	Date Analyzed	11/02/00	11/02/00	
	EPA METHOD 504 -			
	ETHYLENE DIBROMIDE	TB-3	TB-4	Units
			-	
	Ethylene Dibromide	0.020 U	0.020 U	μg/L
	Date Prepared	11/01/00	11/01/00	· -
	Date Analyzed	11/02/00	11/02/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 9 OF 37

ACCUPATION.					
	TOTAL METALS	METHOD	<u>TB-3</u>	<u>TB-4</u>	<u>Units</u>
	Lead Date Analyzed	200.7	0.0050 U 10/31/00	0.0050 I 10/31/00	mg/L
	EPA METHOD FLPRO - PETROL. RESIDUAL OR	G.	<u>TB-3</u>	<u>TB-4</u>	<u>Units</u>
	Hydrocarbons (C8-C4	0)	0.20 U	0.20 U	mg/L
	Surrogate: o-Terphenyl Date Prepared Date Analyzed		8 RECOV 89 10/31/00 11/01/00	% RECOV 84 10/31/00 11/01/00	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown. I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624
PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 10 OF 37

	EPA METHOD 601 -			
	VOLATILE HALOCARBONS	TB-5	TB-6	Units
	Dichlorodifluoromethane	1.0 U	1.0 U	μg/L
	Chloromethane	1.0 U	1.0 U	μg/L
	Vinyl Chloride	1.0 U	1.0 U	μg/L
MARKEN /	Bromomethane	1.0 U	1.0 U	μg/L
era.	Chloroethane	1.0 U	1.0 U	μg/L
	Trichlorofluoromethane	2.0 U	2.0 U	μg/L
	1,1-Dichloroethene	1.0 U	1.0 U	μg/L
	Methylene Chloride	1.0 U	1.0 U	μg/L
	t-1,2-Dichloroethene	1.0 U	1.0 U	µg/L
	1,1-Dichloroethane	1.0 U	1.0 U	μg/L
	c-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
	Chloroform	1.0 U	1.0 U	μg/L
	1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
	Carbon Tetrachloride	1.0 U	1.0 U	μg/L
MINNS.	1,2-Dichloroethane	1.0 U	1.0 U	μg/L
	Trichloroethene	1.0 U	1.0 U	μg/L
	1,2-Dichloropropane	1.0 U	1.0 U	μg/L
	Bromodichloromethane	1.0 U	1.0 U	μg/L
	c-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
epister*	1,1,2-Trichloroethane	1.0 U	1.0 U	μg/L
	Tetrachloroethene	1.0 U	1.0 U	μg/L
	Dibromochloromethane	1.0 U	1.0 U	$\mu extsf{g}/ extsf{L}$
	Chlorobenzene	1.0 U	1.0 U	$\mu { t g}/{ t L}$
	Bromoform	1.0 U	1.0 U	μg/L
	1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	µg/L
Market 2	Surrogate:	% RECOV	% RECOV	LIMITS
831	Bromofluorobenzene	106	105	37-161
	Date Analyzed	10/28/00	10/28/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 11 OF 37

			D UP	
	EPA METHOD 602 - VOLATILE AROMATICS	<u>TB-5</u>	<u>TB-6</u>	<u>Units</u>
	Methyl tert-butyl ether	2.0 U	2.0 U	μg/L
	Benzene	1.0 U	1.0 U	µg/L
	Toluene	1.0 U	1.0 U	μg/L
40000	Chlorobenzene	1.0 U	1.0 U	μg/L
6 75	Ethylbenzene	1.0 U	1.0 U	μg/L
	m-Xylene & p-Xylene	1.0 U	2.1	μg/L
	m-Xylene & p-Xylene o-Xylene	1.0 U	1.0 U	μg/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
	<u>Surrogate:</u> Bromofluorobenzene	% RECOV 98	% RECOV 80	<u>LIMITS</u> 52-147
	Date Analyzed	10/28/00	10/29/00	J2 147

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624
PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 12 OF 37

		Marine of the state of the stat	
EPA METHOD 8310 - PAH BY HPLC	<u>TB-5</u>	<u>TB-6</u>	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.23 0.14 0.10 U	3.2 1.0 U 1.9 1.7 0.50 U 0.17 1.0 U 0.20 U 1.1 0.75 0.10 U	µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L
Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	0.11 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	µg/L µg/L µg/L µg/L µg/L µg/L
Surrogate: p-terphenyl Date Prepared Date Analyzed	* RECOV 106 10/31/00 11/02/00	* RECOV 104 10/31/00 11/02/00	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE Ethylene Dibromide	<u>TB-5</u> 0.020 U 11/01/00	TB-6 0.020 U 11/01/00	<u>Units</u> µg/L
Date Prepared Date Analyzed	11/02/00	11/02/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 13 OF 37

TOTAL METALS	METHOD	<u>TB-5</u>	<u>TB-6</u>	Units
Lead Date Analyzed	200.7	0.0050 U 10/31/00	0.0050 U 10/31/00	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL		<u>TB-5</u>	<u>TB-6</u>	<u>Units</u>
Hydrocarbons (C8-	C40)	0.20 U	1.2	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		<pre>% RECOV 84 10/31/00 11/01/00</pre>	<pre>% RECOV 101 10/31/00 11/01/00</pre>	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 14 OF 37

EPA METHOD 601 -			
VOLATILE HALOCARBONS	<u>PB-1</u>	<u>PB-2</u>	Units
Dichlorodifluoromethane	1.0 U	1.0 U	μg/L
Chloromethane	1.0 U	1.0 U	μg/L
Vinyl Chloride	1.0 U	1.0 U	μg/L
Bromomethane	1.0 U	1.0 U	μg/L
Chloroethane	1.0 U	1.0 U	μg/L
Trichlorofluoromethane	2.0 U	2.0 U	μg/L
1,1-Dichloroethene	1.0 U	1.0 U	μg/L
Methylene Chloride	1.0 U	1.0 U	μg/L
t-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
1,1-Dichloroethane	1.0 U	1.0 U	μg/L
c-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
Chloroform Chloroform	1.0 U	1.0 U	μg/L
Chloroform 1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
Carbon Tetrachloride	1.0 U	1.0 U	μg/L
1,2-Dichloroethane	1.0 U	1.0 U	μg/L
Trichloroethene	1.0 U	1.0 U	μg/L
Trichloroethene 1,2-Dichloropropane Bromodichloromethane	1.0 U	1.0 U	μg/L
Bromodichloromethane	1.0 U	1.0 U	μg/L
c-1,3-Dichloropropene t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	1.0 U	$\mu exttt{g/L}$
1,1,2-Trichloroethane	1.0 U	1.0 U	$\mu exttt{g/L}$
Tetrachloroethene	1.0 U	1.0 U	$\mu g/L$
Dibromochloromethane	1.0 U	1.0 U	μg/L
Chlorobenzene	1.0 U	1.0 U	μg/L
Bromoform	1.0 U	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
S	0 777077	. 25011	>/-ma
Surrogate: Bromofluorobenzene	% RECOV 79	% RECOV 101	<u>LIMITS</u> 37-161
Date Analyzed	10/30/00	10/28/00	3/-161
July 1 mary 2 cu	10/30/00	10/20/00	

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 15 OF 37

Torse .	EPA METHOD 602 - VOLATILE AROMATICS	<u>PB-1</u>	PB-2	Units
	Methyl tert-butyl ether	2.0 U	2.0 U	μg/L
	Benzene	1.0 U	1.0 U	μg/L
### ###	Toluene	1.0 U	1.0 U	μg/L
1	Chlorobenzene	1.0 U	1.0 U	μg/L
ens.	Ethylbenzene	1.0 U	1.0 U	µg/L
	m-Xylene & p-Xylene	1.0 U	1.0 U	µg/L
	o-Xylene	1.0 U	1.0 U	μg/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	µg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
	Surrogate:	% RECOV	% RECOV	LIMITS
	Bromofluorobenzene	89	105	52-147
	Date Analyzed	10/30/00	10/28/00	

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 16 OF 37

K OTON	EPA METHOD 8310 -			
	PAH BY HPLC	<u>PB-1</u>	<u>PB-2</u>	Units
\$0,000	Naphthalene	170 D1	0.50 U	μg/L
	Acenaphthylene	1.0 U	1.0 U	$\mu exttt{g/L}$
	1-Methylnaphthalene	300 D1	1.0 U	μg/L
	2-metnyinaphthaiene	330 D1	1.0 U	μg/L
	Acenaphthene	3.6	0.50 U	μg/L
	Fluorene	4.4	0.10 U	μg/L
		1.0 U	1.0 U	μg/L
alomo	Anthracene	0.20 U	0.20 U	μg/L
	Fluoranthene	8.0	0.10 U	μg/L
	Pyrene	3.0	0.10 U	μg/L
	Benzo(a)anthracene	0.10 U	0.10 U	μg/L
1	Chrysene	0.10 U	0.10 U	μg/L
1	Benzo(b) fluoranthene	0.10 U	0.10 U	μg/L
	Benzo(k) fluoranthene	0.10 U	0.10 U	μg/L
	Benzo(a)pyrene	0.10 U	0.10 U	μg/L
	Dibenzo(a,h) anthracene	0.10 U 0.10 U	0.10 U	μg/L
	Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene		0.10 U	μg/L
8000a	indeno(1,2,3-cd)pyrene	0.10 U	0.10 U	μg/L
	Surrogate:	% RECOV	% RECOV	LIMITS
	p-terphenyl	111	109	43-148
429000	Date Prepared	10/31/00	10/31/00	15 115
	Date Analyzed	11/02/00	11/02/00	
	-		,,	

EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB-1</u>	<u>PB-2</u>	Units
Ethylene Dibromide	0.020 U	0.020 U	µg/L
Date Prepared	11/01/00	11/01/00	F- 3
Date Analyzed	11/02/00	11/02/00	

U = Compound was analyzed for but not detected to the level shown. D1 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 17 OF 37

	TOTAL METALS	METHOD	<u>PB-1</u>	<u>PB-2</u>	Units
	Lead Date Analyzed	200.7	0.0050 U 10/31/00	0.0050 U 10/31/00	mg/L
	EPA METHOD FLPRO - PETROL. RESIDUAL O	RG.	<u>PB-1</u>	<u>PB-2</u>	Units
r i	Hydrocarbons (C8-C	40)	15 D2	0.20 U	mg/L
	Surrogate: o-Terphenyl Date Prepared Date Analyzed		<pre>% RECOV 100 10/31/00 11/02/00</pre>	% RECOV 95 10/31/00 11/01/00	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown. D2 = Analyte value determined from a 1:2 dilution.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 18 OF 37

	EPA METHOD 601 -			
	VOLATILE HALOCARBONS	<u>PB-3</u>	<u>PB-4</u>	<u>Units</u>
	Dichlorodifluoromethane	1.0 U	1.0 U	μg/L
	Chloromethane	1.0 U	1.0 U	μg/L
	Vinyl Chloride	1.0 U	1.0 U	μg/L
(E3555)	Bromomethane	1.0 U	1.0 U	μg/L
2000	Chloroethane	1.0 U	1.0 U	μg/L
	Trichlorofluoromethane	2.0 U	2.0 U	µg/L
	1,1-Dichloroethene	1.0 U	1.0 U	μg/L
	Methylene Chloride	1.0 U	1.0 U	μg/L
	t-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
	1,1-Dichloroethane	1.0 U	1.0 U	μg/L
	c-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
	Chloroform	1.0 U	1.0 U	μg/L
1	1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
	Carbon Tetrachloride	1.0 U	1.0 U	μg/L
6 77700	1,2-Dichloroethane	1.0 U	1.0 U	μg/L
	Trichloroethene 1,2-Dichloropropane Bromodichloromethene	1.0 U	1.0 U	μg/L
	1,2-Dichloropropane	1.0 U	1.0 U	μg/L
	bromodiciiioromethane	1.0 U	1.0 U	μg/L
	c-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	1,1,2-Trichloroethane	1.0 U	1.0 U	μg/L
	Tetrachloroethene	1.0 U	1.0 U	µg/L
	Dibromochloromethane	1.0 U	1.0 U	μg/L
School	Chlorobenzene	1.0 U	1.0 U	μg/L
(500)	Bromoform	1.0 U	1.0 U	μg/L
	1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,3-Dichioropenzene	1.0 U	1.0 U	μg/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	µg/L
	Surrogato	% DECOY	2 DECOT	T T1/TMC
	Surrogate: Bromofluorobenzene	% RECOV	<u>% RECOV</u> 101	<u>LIMITS</u> 37-161
	Date Analyzed	10/28/00	10/28/00	101-16
	Ducc maryzeu	10/20/00	10/20/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 19 OF 37

	EPA METHOD 602 - VOLATILE AROMATICS	<u>PB-3</u>	<u>PB-4</u>	Units
	Methyl tert-butyl ether	2.0 U	2.0 U	μg/L
	Benzene	2.2	1.0 U	μg/L
	Toluene	1.0 U	1.0 U	μg/L
	Chlorobenzene	1.0 U	1.0 U	μg/L
	Ethylbenzene	1.0 U	1.0 U	μg/L
	m-Xylene & p-Xylene	1.0 U	1.0 U	μg/L
	o-Xylene	1.0 U	1.0 U	μg/L
#0957±	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	µg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
]	Surrogate:	% RECOV	% RECOV	LIMITS
1	Bromofluorobenzene	95	96	52-147
	Date Analyzed	10/28/00	10/28/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624
PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 20 OF 37

*COLUM				
	EPA METHOD 8310 - PAH BY HPLC	<u>PB-3</u>	<u>PB-4</u>	Units
	Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene	0.50 U 1.0 U 1.0 U 1.0 U	0.50 U 1.0 U 1.0 U 1.0 U	µg/L µg/L µg/L µg/L
	Acenaphthene Fluorene Phenanthrene Anthracene	0.50 U 0.10 U 1.0 U 0.20 U	0.50 U 0.10 U 1.0 U 0.20 U	μg/L μg/L μg/L μg/L
	Fluoranthene Pyrene Benzo(a)anthracene Chrysene	0.23 0.21 0.10 U 0.10 U	0.10 U 0.10 U 0.10 U 0.10 U	ug/L ug/L ug/L ug/L
	Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene	0.10 U 0.10 U 0.10 U 0.10 U	0.10 U 0.10 U 0.10 U 0.10 U	µg/L µg/L µg/L µg/L
	Indeno(1,2,3-cd)pyrene Surrogate:	0.10 U 0.10 U * RECOV	0.10 U 0.10 U % RECOV	μg/L μg/L LIMITS 43-148
	p-terphenyl Date Prepared Date Analyzed	115 10/31/00 11/02/00	113 10/31/00 11/02/00	43-140
	EPA METHOD 504 -			
	ETHYLENE DIBROMIDE	<u>PB-3</u>	<u>PB-4</u> 0.020 U	<u>Units</u>
	Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 11/01/00 11/02/00	11/01/00 11/02/00	µg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000
REFERENCE: 2624
PROJECT NAME: Reliable Mech. Tank

Clsr

PAGE 21 OF 37

	TOTAL METALS	METHOD	<u>PB-3</u>	<u>PB-4</u>	Units
	Lead Date Analyzed	200.7	0.0050 U 10/31/00	0.0050 U 10/31/00	mg/L
	- -				
	EPA METHOD FLPRO - PETROL. RESIDUAL OR	G.	<u>PB-3</u>	<u>PB-4</u>	Units
	Hydrocarbons (C8-C4	0)	0.20 U	0.20 U	mg/L
	Surrogate: o-Terphenyl		<pre>% RECOV 107 10/31/00</pre>	<pre>% RECOV 95 10/31/00</pre>	<u>LIMITS</u> 65-140
1	Date Prepared Date Analyzed		11/01/00	11/01/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 22 OF 37

E20000	METHOD 601 - TILE HALOCARBONS	<u>PB-5</u>	<u>PB-6</u>	Units
Chlc Viny	lorodifluoromethane romethane l Chloride	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
Chlo	nomethane proethane chlorofluoromethane Dichloroethene	1.0 U 1.0 U 2.0 U 1.0 U	1.0 U 1.0 U 2.0 U 1.0 U	μg/L μg/L μg/L μg/L
Meth t-1, 1,1-	ylene Chloride 2-Dichloroethene Dichloroethane 2-Dichloroethene	1.0 U 1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L
Chlo 1,1, Cark	oroform 1-Trichloroethane oon Tetrachloride	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
Tric 1,2-	-Dichloroethane chloroethene -Dichloropropane modichloromethane	1.0 U 1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L
c-1, t-1, 1,1,	3-Dichloropropene 3-Dichloropropene 2-Trichloroethane	1.0 U 1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U 1.0 U	µg/L µg/L µg/L µg/L
Dibr Chlo	rachloroethene romochloromethane probenzene moform	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
1,3- 1,4-	2,2-Tetrachloroethane -Dichlorobenzene -Dichlorobenzene -Dichlorobenzene	1.0 U 1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L
Sur: Bron	rogate: mofluorobenzene	% RECOV	* RECOV	<u>LIMITS</u> 37-161
Date	e Analyzed	10/28/00	10/28/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 23 OF 37

	EPA METHOD 602 - VOLATILE AROMATICS	<u>PB-5</u>	PB-6	Units
	Methyl tert-butyl ether	2.0 U	2.0 U	μg/L
	Benzene	1.0 U	1.0 U	µg/L
	Toluene	1.0 U	1.0 U	μg/L
-	Chlorobenzene	1.0 U	1.0 U	μg/L
e 1000	Ethylbenzene	1.0 U	1.0 U	µg/L
	m-Xylene & p-Xylene	1.0 U	1.0 U	µg/L
	m-Xylene & p-Xylene o-Xylene 1.3-Dichlorobenzene	1.0 U	1.0 U	µg/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	µg/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	µg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
	Surrogate:	% RECOV	% RECOV	LIMITS
1	Bromofluorobenzene	95	94	52-147
	Date Analyzed	10/28/00	10/28/00	

 $[\]mathbb{U}$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 24 OF 37

EPA METHOD 8310 - PAH BY HPLC	<u>PB-5</u>	<u>PB-6</u>	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	pg/L pg/L pg/L pg/L pg/L pg/L pg/L pg/L
Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	0.10 U 0.10 U 0.10 U	0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L
Surrogate: p-terphenyl Date Prepared Date Analyzed	* RECOV 107 10/31/00 11/02/00	* RECOV 119 10/31/00 11/02/00	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	PB-5	<u>PB-6</u>	Units
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 11/01/00 11/02/00	0.020 U 11/01/00 11/02/00	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624
PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 25 OF 37

TOTAL METAL	LS METHOD	<u>PB-5</u>	<u>PB-6</u>	Units
	200.7 zed	0.0050 U 10/31/00	0.0050 U 10/31/00	mg/L
	FLPRO - SIDUAL ORG.	<u>PB-5</u>	<u>PB-6</u>	Units
Hydrocarbon	ns (C8-C40)	0.20 U	0.20 U	mg/L
o-Terphenyl Date Prepar	red	% RECOV 103 10/31/00 11/01/00	<pre>% RECOV 93 10/31/00 11/01/00</pre>	<u>LIMITS</u> 65-140
	Lead Date Analy: EPA METHOD PETROL. RES Hydrocarbor Surrogate: o-Terpheny: Date Prepai	Lead 200.7 Date Analyzed EPA METHOD FLPRO - PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	Lead 200.7 0.0050 U Date Analyzed 10/31/00 EPA METHOD FLPRO - PETROL. RESIDUAL ORG. PB-5 Hydrocarbons (C8-C40) 0.20 U Surrogate:	Lead 200.7 0.0050 U 0.0050 U 10/31/00 EPA METHOD FLPRO - PETROL. RESIDUAL ORG. PB-5 PB-6 Hydrocarbons (C8-C40) 0.20 U 0.20 U Surrogate: RECOV 8 RECOV 93 O-Terphenyl 103 93 Date Prepared 10/31/00 10/31/00

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624
PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 26 OF 37

annina.	EPA METHOD 601 -			
	VOLATILE HALOCARBONS	PB-7	PB-8	<u>Units</u>
	T1 12 11 63 11	4 0 22	5 0 77 70	/-
	Dichlorodifluoromethane	1.0 U	5.0 U D3	μg/L
	Chloromethane	1.0 U	5.0 U D3	μg/L
	Vinyl Chloride	1.0 U	5.0 U D3	μg/L
	Bromomethane	1.0 U	5.0 U D3	μg/L
	Chloroethane	1.0 U	5.0 U D3	μg/L
	Trichlorofluoromethane	2.0 U	10 U D3	μg/L
	1,1-Dichloroethene	1.0 U	5.0 U D3	μg/L
DEND-IV	Methylene Chloride	1.0 U	5.0 U D3	μg/L
	t-1,2-Dichloroethene	1.0 U	5.0 U D3	μg/L
	1,1-Dichloroethane	1.0 U	5.0 U D3	μg/L
	c-1,2-Dichloroethene	1.0 U	5.0 U D3	μg/L
	Chloroform	1.0 U	5.0 U D3	μg/L
	1,1,1-Trichloroethane	1.0 U	5.0 U D3	μg/L
	Carbon Tetrachloride	1.0 U	5.0 U D3	μg/L
1007)	1,2-Dichloroethane	1.0 U	5.0 U D3	μg/L
	Trichloroethene	1.0 U	5.0 U D3	µg/L
	1,2-Dichloropropane	1.0 U	5.0 U D3	μg/L
	Bromodichloromethane	1.0 U	5.0 U D3	μg/L
	c-1,3-Dichloropropene	1.0 U	5.0 U D3	μg/L
	t-1,3-Dichloropropene	1.0 U	5.0 U D3	µg/L
100-17	1,1,2-Trichloroethane	1.0 U	5.0 U D3	μg/L
988	Tetrachloroethene	1.0 U	5.0 U D3	µg/L
	Dibromochloromethane	1.0 U	5.0 U D3	μg/L
	Chlorobenzene	1.0 U	5.0 U D3	μg/L
	Bromoform	1.0 U	5.0 U D3	μg/L
	1,1,2,2-Tetrachloroethane	1.0 U	5.0 U D3	μg/L
	1,3-Dichlorobenzene	1.0 U	5.0 U D3	μg/L
	1,4-Dichlorobenzene	1.0 U	5.0 U D3	µg/L
80	1,2-Dichlorobenzene	1.0 U	5.0 U D3	µg/L
	,			1 J.
AND C	Surrogate:	% RECOV	% RECOV	LIMITS
	Bromofluorobenzene	78	86	37-161
	Date Analyzed	10/30/00	10/29/00	

U = Compound was analyzed for but not detected to D3 = Analyte value determined from a 1:5 dilution. U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 27 OF 37

EPA METHOD 602 - VOLATILE AROMATICS	<u>PB-7</u>	PB-8	Units
Methyl tert-butyl ether	2.0 U	10 U D3	μg/L
Benzene	1.0 U	5.0 U D3	μg/L
Toluene	1.0 U	5.0 U D3	μg/L
Chlorobenzene	1.0 U	5.0 U D3	μg/L
Ethylbenzene	1.0 U	5.0 U D3	$\mu exttt{g/L}$
m-Xylene & p-Xylene	1.0 U	5.0 U D3	μg/L
o-Xylene	1.0 U	5.0 U D3	μg/L
1,3-Dichlorobenzene	1.0 U	5.0 U D3	μg/L
1,4-Dichlorobenzene	1.0 U	5.0 U D3	μg/L
1,2-Dichlorobenzene	1.0 U	5.0 U D3	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	81	124	52-147
Date Analyzed	10/30/00	10/29/00	

U = Compound was analyzed for but not detected to the level shown. D3 = Analyte value determined from a 1:5 dilution.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 28 OF 37

RESULTS OF ANALYSIS

	EPA METHOD 8310 - PAH BY HPLC	<u>PB-7</u>	PB-8	Units
	Naphthalene	1.1	1000 D4	μg/L
	Acenaphthylene	1.2	1.0 U	μg/L
	1-Methylnaphthalene	37	1500 D4	μg/L
£23337	2-Methylnaphthalene	17	2200 D4	μg/L
F773	Acenaphthene	2.7	39	μg/L
	Fluorene Phenanthrene	1.5	49	μg/L
	Anthracene	1.0 U 0.20 U	1.0 U 0.20 U	μg/L
#10°CPA	Fluoranthene	5.3	170 D4	μg/L
	Pyrene	4.1	170 D4 110 D4	μg/L μg/L
	Benzo(a) anthracene	0.77	31	μg/L
	Chrysene	0.53	22	μg/L
	Benzo(b) fluoranthene Benzo(k) fluoranthene	0.21	7.5	μg/L
1 .	Benzo(k) fluoranthene	0.14	4.5	µg/L
	Benzo(a) byrene	0.21	7.3	μg/L
	Dibenzo(a, h) anthracene Benzo(g, h, i) perylene	0.10 U	1.5	µg/L
	Benzo(g,h,i)perylene	0.10 U	2.0	$\mu g/L$
A-1	Indeno(1,2,3-cd)pyrene	0.10 U	2.8	μg/L
	Surragata.	° DECOM	9. DECOM	T TWTMC
	<pre>Surrogate: p-terphenyl</pre>	<u>% RECOV</u> 106	% RECOV 0 U	$\frac{\text{LIMITS}}{43-148}$
	Date Prepared	10/31/00	10/31/00	42-140
M	Date Analyzed	11/02/00	11/02/00	
		11, 02, 00	<i>xx, 0 m, 00</i>	

EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB-7</u>	<u>PB-8</u>	Units
Ethylene Dibromide	0.020 U	0.020 U	µg/L
Date Prepared	11/01/00	11/01/00	
Date Analyzed	11/02/00	11/02/00	

 ${\tt U}={\tt Compound}$ was analyzed for but not detected to the level shown. ${\tt D4}={\tt Analyte}$ value determined from a 1:50 dilution.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000
REFERENCE: 2624
PROJECT NAME: Reliable Mech. Tank

Clsr

PAGE 29 OF 37

TOTAL METALS	METHOD	PB-7	PB-8	Units
Lead Date Analyzed	200.7	0.0050 U 10/31/00	0.0050 U 10/31/00	mg/L
PETROL. RESIDUAL		<u>PB-7</u>	<u>PB-8</u>	Units
Hydrocarbons (C8-0	C40)	8.8 D2	320 D4	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV 97 10/31/00 11/02/00	% RECOV * 10/31/00 11/02/00	<u>LIMITS</u> 65-140

^{* =} Surrogate recovery unavailable due to sample silution.

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:2 dilution.

D4 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624
PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 30 OF 37

	EPA METHOD 601 - VOLATILE HALOCARBONS	LAB BLANK	LAB BLANK	Units
	Dichlorodifluoromethane	1.0 U	1.0 U	μg/L
	Chloromethane	1.0 U	1.0 U	μg/L
	Vinyl Chloride	1.0 U	1.0 U	μg/L
	Bromomethane	1.0 U	1.0 U	μg/L
	Chloroethane	1.0 U	1.0 U	μg/L
	Trichlorofluoromethane	2.0 U	2.0 U	μg/L
	1,1-Dichloroethene	1.0 U	1.0 U	μg/L
www.co	Methylene Chloride	1.0 U	1.0 0	μg/L
	t-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
	1,1-Dichloroethane	1.0 U	1.0 U	μg/L
	c-1,2-Dichloroethene Chloroform	1.0 U	1.0 U	μg/L
ESSE:	1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
1	Carbon Tetrachloride	1.0 U 1.0 U	1.0 U 1.0 U	μg/L
1	1,2-Dichloroethane	1.0 U	1.0 U	μg/L
	Trichloroethene	1.0 U	1.0 U	μg/L
	1,2-Dichloropropane	1.0 U	1.0 U	μg/L μg/L
350	Bromodichloromethane	1.0 U	1.0 U	μg/L μg/L
	c-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	1,1,2-Trichloroethane	1.0 U	1.0 U	μg/L
0000	Tetrachloroethene	1.0 U	1.0 U	μg/L
	Dibromochloromethane	1.0 U	1.0 U	μg/L
	Chlorobenzene	1.0 U	1.0 U	μg/L
SSE7	Bromoform	1.0 U	1.0 U	μg/L
	1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
10	1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
	Conservation of			
	Surrogate:	% RECOV	% RECOV	LIMITS
	Bromofluorobenzene	102	86	37-161
	Date Analyzed	10/28/00	10/29/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 31 OF 37

Kase	EPA METHOD 602 -			
	VOLATILE AROMATICS	LAB BLANK	LAB BLANK	Units
	Methyl tert-butyl ether	2.0 U	2.0 U	μg/L
	Benzene	1.0 U	1.0 U	μg/L
	Toluene	1.0 U	1.0 U	μg/L
	Chlorobenzene	1.0 U	1.0 U	μg/L
	Ethylbenzene	1.0 U	1.0 U	μg/L
	m-Xylene & p-Xylene	1.0 U	1.0 U	μg/L
	o-Xylene	1.0 U	1.0 U	µg/L
80000	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
1000 A	1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
	Surrogate:	% RECOV	% RECOV	LIMITS
	Bromofluorobenzene	94	108	52-147
Ī	Date Analyzed	10/28/00	10/29/00	

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624
PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 32 OF 37

		Units
Naphthalene	E	
TOPICILE CITY	50 U	μg/L
		μg/L
Fluorene 0.3		μg/L
		μg/L
Anthracene 0.2		μg/L
Fluoranthene 0.3		μg/L
	10 U	μg/L
		μg/L
	10 U	μg/L
		μg/L
Benzo(k) fluoranthene 0.1		μg/L
		μg/L
Dibenzo(a,h)anthracene 0.1		μg/L
		μg/L
Indeno(1,2,3-cd)pyrene 0.3	10 U	μg/L
	RECOV	LIMITS
p-terphenyl 13	14	43-148
	31/00	
Date Analyzed 11/0	01/00	

EPA METHOD 504 - ETHYLENE DIBROMIDE	LAB BLANK	Units
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 11/01/00 11/01/00	μg/L

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624
PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 33 OF 37

TOTAL METALS	METHOD	LAB BLANK	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 10/30/00	mg/L
PETROL. RESIDUAL ORG	<u>G.</u>	LAB BLANK	Units
Hydrocarbons (C8-C40	0)	0.20 U	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		* RECOV 78 10/31/00 11/01/00	<u>LIMITS</u> 65-140

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 33 OF 37

TOTAL METALS	METHOD	LAB BLANK	Units
Lead Date Analyzed	200.7	0.0050 U 10/30/00	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL O	RG.	LAB BLANK	<u>Units</u>
Hydrocarbons (C8-C	40)	0.20 U	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV 78 10/31/00 11/01/00	<u>LIMITS</u> 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981
DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 34 OF 37

Y	OLATILE HALOCARBONS	LAB BLANK	LAB BLANK	<u>Units</u>
С	ichlorodifluoromethane	1.0 U	1.0 U	μg/L
	hloromethane	1.0 U	1.0 U	μg/L
В	<pre>inyl Chloride romomethane hloroethane</pre>	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
Т	richlorofluoromethane ,1-Dichloroethene	2.0 U 1.0 U	2.0 U 1.0 U	μg/L μg/L
_ t	ethylene Chloride	1.0 U	1.0 U	μg/L
	-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
L c	,1-Dichloroethane	1.0 U	1.0 U	μg/L
	-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
	hloroform	1.0 U	1.0 U	μg/L
] 1	,1,1-Trichloroethane arbon Tetrachloride	1.0 U	1.0 U	μg/L
C		1.0 U	1.0 U	μg/L
T 1	,2-Dichloroethane richloroethene ,2-Dichloropropane romodichloromethane	1.0 U 1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L
t	:-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	:-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	:,1,2-Trichloroethane	1.0 U	1.0 U	μg/L
T D C	etrachloroethene Dibromochloromethane Chlorobenzene	1.0 U 1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L
$\begin{bmatrix} 1\\1\\1 \end{bmatrix}$.,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
	.,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
	.,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
	.,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
B	Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 98 10/29/00	% RECOV 74 10/30/00	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000
REFERENCE: 2624
PROJECT NAME: Reliable Mech. Tank

Clsr

PAGE 35 OF 37

	EPA METHOD 602 - VOLATILE AROMATICS	LAB BLANK	LAB BLANK	Units
	Methyl tert-butyl ether	2.0 U	2.0 U	μg/L
	Benzene	1.0 U	1.0 U	μg/L
	Toluene	1.0 U	1.0 U	μ g/L
	Chlorobenzene	1.0 U	1.0 U	μg/L
	Ethylbenzene	1.0 U	1.0 U	μg/L
		1.0 U	1.0 U	μg/L
	m-Xylene & p-Xylene o-Xylene	1.0 U	1.0 U	μg/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
677	1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
grovers Decrees	Surrogate:	% RECOV	% RECOV	LIMITS
1	Bromofluorobenzene	87	87	52-147
	Date Analyzed	10/30/00	10/30/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13981

DATE REPORTED: November 6, 2000

REFERENCE : 2624

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 36 OF 37

QUALITY CONTROL DATA

Parameter	<pre>% RECOVERY MS/MSD/LCS</pre>	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 601				
Methylene Chloride Chloroform Carbon Tetrachloride Trichloroethene Tetrachloroethene Chlorobenzene	97/ 93/ 94 107/100/101 119/112/111 122/116/118 102/ 99/109 97/ 96/100	45-161 64-154 71-165 69-158 63-166 67-147	4 7 6 5 3 1	29 16 21 24 21 19
EPA Method 602 Benzene Toluene Ethylbenzene o-Xylene	87/ 84/ 84 81/ 81/ 85 94/ 92/ 93 93/ 88/ 89	60-138 57-138 49-144 50-151	4 <1 2 6	17 16 17 17
EPA Method 8310 Naphthalene Acenaphthene Benzo(a)pyrene Benzo(g,h,i)perylene	65/ 81/ 77 68/ 86/ 75 82/ 91/ 88 87/103/ 92	59-111 58-128 78-134 62-115	22 23 10 17	12 13 15 30
EPA Method 504 Ethylene Dibromide Dibromochloropropane	112/112/108 100/104/ 96	57-130 60-130	<1 4	18 20

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than
MS = Matrix Sni</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

: JAX13981 REPORT #

DATE REPORTED: November 6, 2000

: 2624 REFERENCE

PROJECT NAME : Reliable Mech. Tank

Clsr

PAGE 37 OF 37

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
TOTAL METALS Lead, 200.7	96/101/ 98	68-126	5	19
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	93/ 93/ 71	-	<1	

Environmental Conservation Laboratories Comprehensive QA Plan #910190

= Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

CLIENT : Environmental Recovery REPORT #

REPORT # : JAX13950

ADDRESS: 251 Levy Road

DATE SUBMITTED: October 24, 2000
DATE REPORTED: November 7, 2000

Atlantic Beach, FL 32233

PAGE 1 OF 26

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT : MAYPORT NAVAL ST.

Tank Closure

10/23/00

- TB 1-4' @ 16:35 #1 @ 16:05 - TB 2-4' #2 @ 15:00 - TB 3-4' #3 - TB 4-4' @ 15:10 #4 - TB 5-3.5' @ 16:25 #5 - PB 1-4' @ 09:10 - PB 2-2' @ 09:24 - PB 1-4' #6 #7 - PB 3-3.5 @ 09:43 #8 - PB 4-4' @ 11:26 - PB 5-4' @ 11:37 #9 - PB 5-4' #10 - PB 6-4' @ 11:50 #11 #12 - PB 7-4' @ 13:28 #13 - PB 8-2' @ 13:45

PROJECT MANAGER ____

Scott D. Martin

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 2 OF 26

L	EPA METHOD 8260 - VOLATILE ORGANICS	<u>TB</u> <u>1-4'</u>	<u>TB</u> 2-4'	Units
	Methyl tert-butyl ether Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	1.3 U D1 1.3 U D1 1.3 U D1 1.3 U D1 2.5 U D1 1.3 U D1	1.0 U 1.2 U 2.3 3.1 2.0 U 4.3	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
	Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	* RECOV 119 138 106 11/06/00	* RECOV 106 135 108 11/07/00	LIMITS 69-138 67-123 64-131

U = Compound was analyzed for but not detected to the level shown. D1 = Analyte value determined from a 1:1.15 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE : MAYPORT NAVAL ST.
PROJECT NAME : Tank Closure

PAGE 3 OF 26

EPA METHOD 8310 - PAH BY HPLC		<u>TB</u> 1-4'	<u>TB</u> 2-4'	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthen Benzo(k) fluoranthen Benzo(a) pyrene Dibenzo(a, h) anthrace	е	18 U 36 U 36 U 38	20 U 41 U 41 U 41 U 20 U 4.1 U 4.1 U 20 U 4.1 U	нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд
Benzo(g,h,i)perylen Indeno(1,2,3-cd)pyr	e	3.6 U 3.6 U	4.1 U 4.1 U	µg/Kg µg/Kg
Surrogate: p-terphenyl Date Prepared Date Analyzed		% RECOV 116 10/30/00 10/30/00	* RECOV 121 10/30/00 10/30/00	LIMITS 39-141
MISCELLANEOUS	METHOD	<u>TB</u> 1-4'	<u>TB</u> 2-4'	<u>Units</u>
Percent Solids Date Analyzed	SM2540G	92 10/26/00	81 10/26/00	olo

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 4 OF 26

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	<u>TB</u> 1-4'	<u>TB</u> 2-4'	Units
Hydrocarbons (C8-C40)	7.2 U	8.1 U	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV 80 10/26/00 10/30/00	8 RECOV 95 10/26/00 10/30/00	<u>LIMITS</u> 51-148

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000
REFERENCE: MAYPORT NAVAL ST.
PROJECT NAME: Tank Closure

PAGE 5 OF 26

EPA METHOD 8260 - VOLATILE ORGANICS	<u>TB 3-4'</u>	<u>TB 4-4'</u>	Units
Methyl tert-butyl ether Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	1.4 U D2 1.4 U D2 1.4 U D2 1.4 U D2 2.6 U D2 1.4 U D2	1.2 U D3 1.2 U D3 1.2 U D3 1.2 U D3 2.6 U D3 1.2 U D3	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	% RECOV 112 137 104 11/06/00	* RECOV 113 138 105 11/06/00	LIMITS 69-138 67-123 64-131

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:1.16 dilution.

D3 = Analyte value determined from a 1:1.13 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 6 OF 26

EPA METHOD 8310 - PAH BY HPLC		<u>TB</u> 3-4'	TB 4-4'	Units
Naphthalene		19 U 38 U	18 U 37 U	μg/Kg μg/Kg
Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene		38 U 38 U 19 U	37 ט 37 ט 18 ט	μg/Kg μg/Kg μg/Kg
Fluorene Phenanthrene Anthracene Fluoranthene		3.8 U 38 U 19 U 3.8 U	3.7 U 37 U 18 U 15	µg/Kg µg/Kg µg/Kg µg/Kg
Pyrene Benzo(a)anthracene Chrysene		3.8 U 19 U 3.8 U 3.8 U	14 18 U 3.7 U 3.7 U	μg/Kg μg/Kg μg/Kg μg/Kg
Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthrace	e	3.8 U 3.8 U 3.8 U	3.7 U 3.7 U 3.7 U	µg/Kg µg/Kg µg/Kg
Benzo(g,h,i)perylend Indeno(1,2,3-cd)pyre		3.8 U 3.8 U	3.7 U 3.7 U	µg/Kg µg/Kg
Surrogate: p-terphenyl Date Prepared		% RECOV 120 10/30/00	% RECOV 118 10/30/00	<u>LIMITS</u> 39-141
Date Analyzed		10/30/00	10/30/00	
MISCELLANEOUS	METHOD	<u>TB</u> 3-4'	<u>TB 4-4'</u>	Units
Percent Solids Date Analyzed	SM2540G	87 10/26/00	90 10/26/00	90

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 7 OF 26

	TB 3-4'	<u>TB</u> 4-4'	Units
(C8-C40)	7.6 U	7.3 U	mg/Kg
	% RECOV	% RECOV	LIMITS
	72	83	51-148
ì	10/26/00	10/26/00	
ì	10/30/00	10/30/00	
	DUAL ORG. (C8-C40)	DUAL ORG. TB 3-4' (C8-C40) 7.6 U \$ RECOV 72 10/26/00	DUAL ORG. TB 3-4' TB 4-4' (C8-C40) 7.6 U 7.3 U \$ RECOV 72 \$ RECOV 83 10/26/00 10/26/00

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 8 OF 26

	EPA METHOD 8260 - VOLATILE ORGANICS	<u>TB</u> <u>5-3.5'</u>	PB 1-4'	Units
	Methyl tert-butyl ether Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	1.3 U D4 1.3 U D4 1.3 U D4 1.3 U D4 2.6 U D4 1.3 U D4	130 U D5 130 U D5 130 U D5 130 U D5 250 U D5 130 U D5	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
Control of the Contro	Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	<pre>% RECOV 112 137 105 11/06/00</pre>	* RECOV 106 146 105 11/02/00	LIMITS 69-138 67-123 64-131

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:1.21 dilution.

D5 = Analyte value determined from a 1:100 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 9 OF 26

	EPA METHOD 8310 -				
C	PAH BY HPLC		<u>TB</u> <u>5-3.5'</u>	<u>PB</u> 1-4'	Units
	Naphthalene		18 U	21 U 42 U	μg/Kg
	Acenaphthylene		35 U 35 U	320	μg/Kg μg/Kg
	1-Methylnaphthalene 2-Methylnaphthalene		35 U	100	μg/Kg μg/Kg
	Acenaphthene		18 U	21 U	μg/Kg
	Fluorene		3.5 U	22	μg/Kg
	Phenanthrene		35 U	42 U	μg/Kg
	Anthracene		18 U	21 U	μg/Kg
	Fluoranthene		3.5 U	4.2 U	μg/Kg
	Pyrene		3.5 U	69	μg/Kg
	Benzo(a)anthracene		18 U	21 U	μg/Kg
	Chrysene		3.5 U	4.2 U	μg/Kg
	Benzo(b)fluoranthene		3.5 U	4.2 U	μg/Kg
1	Benzo(k) fluoranthene	e	3.5 U	4.2 U	μg/Kg
4000	Benzo(a)pyrene		3.5 U	4.2 U	μg/Kg
66	Dibenzo(a,h)anthrace		3.5 U	4.2 U 4.2 U	μg/Kg
	Benzo(g,h,i)perylend		3.5 U 3.5 U	4.2 U	μg/Kg μg/Kg
	Indeno(1,2,3-cd)pyre	ene	3.5 0	4.2 0	µg/ kg
	Surrogate:		% RECOV	% RECOV	LIMITS
	p-terphenyl		117	125	39-141
NOOSS	Date Prepared		10/30/00	10/30/00	
f	Date Analyzed		10/30/00	10/31/00	
	MISCELLANEOUS	METHOD	TB 5-3.5'	PB 1-4'	Units
	TIT DOETHTWINEOUS	<u> </u>	<u> </u>		<u> </u>
pre-	Percent Solids	SM2540G	93	79	8
	Date Analyzed		10/26/00	10/26/00	
L.					

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 10 OF 26

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	<u>TB</u> <u>5-3.5'</u>	PB 1-4'	Units
Hydrocarbons (C8-C40)	7.1 U	300	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	* RECOV 77 10/26/00 10/30/00	* RECOV 78 10/26/00 10/30/00	<u>LIMITS</u> 51-148

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 11 OF 26

EPA METHOD 8260 - VOLATILE ORGANICS	PB 2-2'	<u>PB</u> 3-3.5	Units
Methyl tert-butyl ether Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	1.3 U D4 1.3 U D4 1.3 U D4 1.3 U D4 2.6 U D4	1.6 U D6 1.6 U D6 1.6 U D6 1.6 U D6 3.2 U D6	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
o-Xylene	1.3 U D4	1.6 U D6	μg/Kg
Surrogate:	% RECOV	% RECOV_	LIMITS
Dibromofluoromethane	116	113	69-138 67-123
D8-Toluene	137	134	
Bromofluorobenzene	106	106	64-131
Date Analyzed	11/06/00	11/06/00	

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:1.21 dilution. D6 = Analyte value determined from a 1:1.18 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000
REFERENCE: MAYPORT NAVAL ST.
PROJECT NAME: Tank Closure

PAGE 12 OF 26

	EPA METHOD 8310 - PAH BY HPLC		<u>PB 2-2'</u>	<u>PB</u> 3-3.5	<u>Units</u>
	Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene		18 U 36 U 36 U 36 U 18 U 47	22 U 44 U 44 U 44 U 22 U 4.4 U 44 U	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
	Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene		330 140 110 68 63 29 23	22 U 15 11 22 U 8.5 4.4 U 4.4 U	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
	Benzo(a)pyrene Dibenzo(a,h)anthrace Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyre Surrogate:	ene	32 15 31 27 % RECOV	4.4 U 4.4 U 4.4 U 4.4 U	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
	p-terphenyl Date Prepared Date Analyzed		120 10/30/00 10/31/00	106 10/30/00 10/31/00	39-141
Marian .	MISCELLANEOUS Percent Solids	METHOD SM2540G	<u>PB 2-2'</u> 91	<u>PB</u> 3-3.5	Units
B	Date Analyzed		10/26/00	10/26/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000
REFERENCE: MAYPORT NAVAL ST.
PROJECT NAME: Tank Closure

PAGE 13 OF 26

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	<u>PB</u> 2-2'	<u>PB</u> 3-3.5	Units
Hydrocarbons (C8-C40)	7.2 U	8.9 U	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV 82 10/26/00 10/30/00	8 RECOV 94 10/26/00 10/30/00	<u>LIMITS</u> 51-148

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 14 OF 26

	EPA METHOD 8260 - VOLATILE ORGANICS	<u>PB</u> 4-4'	PB 5-4'	Units
	Methyl tert-butyl ether	1.0 U D7	1.2 U D8	μg/Kg
460000**	Benzene	1.0 U D7	1.2 U D8	μg/Kg
(#)	Toluene	1.0 U D7	1.2 U D8	μg/Kg
	Ethylbenzene	1.0 U D7	1.2 U D8	μg/Kg
	m-Xylene & p-Xylene	3.1 U D7	2.4 U D8	μg/Kg
artistics.	o-Xylene	1.0 U D7	1.2 U D8	μg/Kg
	Surrogate:	% RECOV	% RECOV	LIMITS
	Dibromofluoromethane	113	114	69-138
	D8-Toluene	136	137	67-123
	Bromofluorobenzene	106	103	64-131
Marcol	Date Analyzed	11/06/00	11/06/00	

U = Compound was analyzed for but not detected to the level shown. D7 = Analyte value determined from a 1:1.04 dilution. D8 = Analyte value determined from a 1:1.12 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000

REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 15 OF 26

EPA METHOD 8310 - PAH BY HPLC	<u>PB 4-4'</u>	PB 5-4'	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	24 U 48 U 48 U 48 U 24 U 4.8 U 48 U 140 66 59 27 24 11 7.0 8.2 4.8 U 7.5 5.7	18 U 37 U 37 U 37 U 18 U 3.7 U 140 18 U .370 360 180 160 150 49 71 21 44 80	нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд
Surrogate: p-terphenyl Date Prepared Date Analyzed	* RECOV 115 10/30/00 10/31/00	% RECOV 120 10/30/00 10/31/00	<u>LIMITS</u> 39-141
MISCELLANEOUS METHOD Percent Solids SM2540G Date Analyzed	<u>PB</u> <u>4-4'</u> 68 10/26/00	<u>PB 5-4'</u> 90 10/26/00	<u>Units</u> %

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 16 OF 26

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	PB 4-4'	PB 5-4'	Units
Hydrocarbons (C8-C40)	9.7 U	44	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV 91 10/26/00 10/30/00	* RECOV 104 10/26/00 10/30/00	<u>LIMITS</u> 51-148

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 17 OF 26

EPA METHOD 8260 - VOLATILE ORGANICS	PB 6-4'	PB 7-4'	Units
Methyl tert-butyl ether Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	1.2 U D6 1.2 U D6 1.2 U D6 1.2 U D6 2.5 U D6 1.2 U D6	110 U D5 110 U D5 110 U D5 110 U D5 220 U D5 110 U D5	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	% RECOV 112 140 108 11/06/00	% RECOV 105 145 108 11/02/00	LIMITS 69-138 67-123 64-131

U = Compound was analyzed for but not detected to the level shown. D5 = Analyte value determined from a 1:100 dilution.

D6 = Analyte value determined from a 1:1.18 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000
REFERENCE: MAYPORT NAVAL ST.
PROJECT NAME: Tank Closure

PAGE 18 OF 26

EPA METHOD 8310 - PAH BY HPLC	PB 6-4'	PB 7-4'	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	17 U 34 U 34 U 34 U 17 U 3.4 U 17 U 3.4 U 17 U 3.4 U 17 U 3.4 U	3100 D9 360 U D9 8800 D9 13000 D9 410 D9 320 D9 360 U D9 180 U D9 2000 D9 1200 D9 340 D9 220 D9 110 D9 35 U D9 35 U D9 54 D9 76 D9	нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд
Surrogate: p-terphenyl Date Prepared Date Analyzed	* RECOV 121 10/30/00 10/31/00	% RECOV 0 U 10/30/00 10/31/00	<u>LIMITS</u> 39-141
MISCELLANEOUS METHOD Percent Solids SM2540G Date Analyzed	<u>PB 6-4'</u> 96 10/26/00	PB 7-4' 93 10/26/00	Units %

U = Compound was analyzed for but not detected to the level shown. D9 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE : MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 19 OF 26

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	PB 6-4'	PB 7-4'	Units
Hydrocarbons (C8-C40)	6.9 U	5600 D9	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV 91 10/26/00 10/30/00	% RECOV 0 U 10/26/00 10/31/00	LIMITS 51-148

U = Compound was analyzed for but not detected to the level shown. D9 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 20 OF 26

EPA METHOD 8260 - VOLATILE ORGANICS	PB 8-2'	LAB BLANK	Units
Methyl tert-butyl ether Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	1.0 U D10 1.0 U D10 1.0 U D10 1.0 U D10 2.8 U D10 1.0 U D10	100 U D5 100 U D5 100 U D5 100 U D5 200 U D5 100 U D5	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	* RECOV 122 129 123 11/06/00	% RECOV 106 139 107 11/01/00	LIMITS 69-138 67-123 64-131

U = Compound was analyzed for but not detected to the level shown. D5 = Analyte value determined from a 1:100 dilution. D10 = Analyte value determined from a 1:1.03 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 21 OF 26

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	PB 8-2'	LAB BLANK	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene	160 44 U 2200 1400 1000 890 5500 D9 7000 D9 5000 D9 4500 D9 1100 820 250 190	16 U 33 U 33 U 33 U 16 U 3.3 U 16 U 3.3 U 3.3 U 3.3 U 3.3 U	нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд нд/Кд
Benzo(a)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	300 60 73 140	3.3 U 3.3 U 3.3 U 3.3 U	µg/Kg µg/Kg µg/Kg µg/Kg
Surrogate: p-terphenyl Date Prepared Date Analyzed	<pre>% RECOV</pre>	* RECOV 112 10/30/00 10/30/00	<u>LIMITS</u> 39-141
MISCELLANEOUS METHO	<u>PB</u> <u>8-2'</u>	LAB BLANK	Units
Percent Solids SM25	40G 74	NA	ક

10/26/00

 ${\tt U}={\tt Compound}$ was analyzed for but not detected to the level shown. ${\tt D9}={\tt Analyte}$ value determined from a 1:10 dilution.

Date Analyzed

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 22 OF 26

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	PB 8-2'	LAB BLANK	Units
Hydrocarbons (C8-C40)	1800 D9	6.6 U	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV * 10/26/00 10/31/00	% RECOV 91 10/26/00 10/30/00	<u>LIMITS</u> 51-148

 $[\]star$ = MS/MSD/RPD unavailable due to high original sample concentration. U = Compound was analyzed for but not detected to the level shown.

D9 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000
REFERENCE: MAYPORT NAVAL ST.
PROJECT NAME: Tank Closure

PAGE 23 OF 26

EPA METHOD 8260 - VOLATILE ORGANICS	LAB BLANK	LAB BLANK	Units
Methyl tert-butyl ether Benzene	1.0 U 1.0 U	1.0 U 1.0 U	μg/Kg μg/Kg
Toluene	1.0 U	1.0 U	μg/Kg
Ethylbenzene m-Xylene & p-Xylene	1.0 U 2.0 U	1.0 U 2.0 U	μg/Kg
o-Xylene	1.0 U	1.0 U	μg/Kg μg/Kg
Surrogate:	% RECOV	% RECOV	LIMITS
Dibromofluoromethane	112	108	69-138
D8-Toluene	158	132	67-123
Bromofluorobenzene	107	100	64-131
Date Analyzed	11/06/00	11/07/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 24 OF 26

EPA METHOD 8310 - PAH BY HPLC	LAB BLANK	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	16 U 33 U 33 U 33 U 36 U 3.3 U	рд/Кд рд/Кд рд/Кд рд/Кд рд/Кд рд/Кд рд/Кд рд/Кд рд/Кд рд/Кд рд/Кд рд/Кд
Surrogate: p-terphenyl Date Prepared Date Analyzed	* RECOV 116 10/31/00 10/31/00	LIMITS 39-141

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 25 OF 26

QUALITY CONTROL DATA

	% RECOVERY	ACCEPT	% RPD	ACCEPT
Parameter	MS/MSD/LCS	LIMITS	MS/MSD	LIMITS
EPA Method 8260	111/11/11/1	44 160	_	1.0
1,1-Dichloroethene	111/114/126	44-169	3	19
Benzene	98/ 99/106	50-140	1	23
Trichloroethene	92/ 90/ 98	75-125	2	17
Toluene	103/104/109	56-139	<1	22
Chlorobenzene	96/ 96/103	73-123	<1	24
EPA Method 8260				
1,1-Dichloroethene	126/144/152	44-169	13	19
Benzene	99/117/115	50-140	17	23
Trichloroethene	82/ 95/ 98	75-125	15	17
Toluene	84/102/103	56-139	19	22
Chlorobenzene	89/102/101	73-123	14	24
EPA Method 8310				
Naphthalene	84/ 80/ 76	48-130	5	20
Acenaphthene	97/108/ 97	36-127	11	17
Benzo(a)pyrene	89/ 87/ 74	64-141	2	22
Benzo(g,h,i)perylene	104/100/102	58-168	4	21

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

REPORT # : JAX13950

DATE REPORTED: November 7, 2000 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 26 OF 26

QUALITY CONTROL DATA

Parameter	% RECOVERY	ACCEPT	% RPD	ACCEPT
	MS/MSD/LCS	LIMITS	MS/MSD	LIMITS
EPA Method 8310 Naphthalene Acenaphthene Benzo(a)pyrene Benzo(g,h,i)perylene	84/ 80/ 89	48-130	5	20
	97/108/108	36-127	11	17
	89/ 87/ 72	64-141	2	22
	104/100/103	58-168	4	21
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	89/ 88/ 82	62-204	1	25

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

LIMITED TANK CLOSURE REPORT ABOVEGROUND STORAGE TANK NO. 202 RELIABLE MECHANICAL JOB MAYPORT NAVAL STATION MAYPORT, FLORIDA



LIMITED TANK CLOSURE REPORT ABOVEGROUND STORAGE TANK NO. 202 RELIABLE MECHANICAL JOB MAYPORT NAVAL STATION MAYPORT, FLORIDA

PREPARED FOR:

Environmental Recovery Group, Inc. 251 Levy Road Atlantic Beach, Florida 32233-0569 ERG Job Number 2828

PREPARED BY:

Aerostar Environmental Services, Inc. 11200 St. Johns Industrial Parkway, Suite 1 Jacksonville, Florida 32246 (904) 565-2820

RECEIVED

JAN 0 8 2002

Richard D. McCann, Project Manager

3/5/01

Date

Leon J. Carrero, P.G.; Manager, Environmental Services

Date

TABLE OF CONTENTS

SECTION	PAG	E
1.0 INTROD	JCTION	. 1
2.0 STORAG	E TANK REMOVAL PROCEDURES	. 1
3.0 ENVIRO	NMENTAL MONITORING ACTIVITIES	. 2
4.0 RECOM	MENDATIONS	. 3
	TABLES	
TABLE 1	Soil Screening Summary	
TABLE 2	Soil Analytical Summary	
TABLE 3	Groundwater Analytical Summary	
	FIGURES	
FIGURE 1	Topographic Site Location Map	
FIGURE 2	Site Plan and Sampling Locations	
	APPENDICES	
APPENDIX A	Limited Closure Summary Report	
APPENDIX B	Storage Tank Facility Registration Form	
APPENDIX C	Photographic Documentation	
APPENDIX D	Laboratory Analytical Reports	

1.0 INTRODUCTION

Aerostar Environmental Services, Inc. (AEROSTAR) provided environmental services during closure of an aboveground storage tank (AST) system (hereafter referred to as Tank #202), located at the Mayport Naval Station, Mayport, Duval County, Florida, Florida Department of Environmental Protection (FDEP ID) #168626008; hereafter referred to as the site. According to Navy records, the AST stored JP-5 to fuel aircraft carriers stationed at Mayport Naval Station. A topographic map showing the location of the site is included as Figure 1. Demolition and AST closure activities were managed by Reliable Mechanical, Inc. (RMI) of Louisville, Kentucky; the prime contractor on the MILCON project. Environmental assessment activities were conducted by AEROSTAR personnel in accordance with the guidelines established in the Storage Tank System Closure Assessment Requirements and following closure specifications provided by RMI. Based on the results of this investigation, further assessment is recommended for the area of the former AST system. The following sections present the AST system location and description, closure procedures and results of the environmental monitoring activities.

2.0 STORAGE TANK REMOVAL PROCEDURES

The former AST system was located approximately 200 feet south of the St. Johns River on the Mayport Naval Station, and consisted of a 598,000-gallon steel tank containing JP-5 jet fuel. The AST was constructed of welded steel sheets and placed on a one-foot thick round concrete pad, approximately 88 feet in diameter. Information obtained by AEROSTAR from the Navy indicated that the AST was installed in 1960. A site plan showing the location of the former AST system is included as Figure 2.

The AST system was removed between January 12 and January 13, 2001 by Realco Recycling and Wrecking Company, a subcontractor to RMI. Prior to demolition, the remaining contents of Tank #202 were transferred to another tank located at the site. The interior of the tank was cleaned by Environmental Recovery Group, Inc. (ERG). The rinse water was transported by Waste Reduction Systems, Inc. (WRS) to Industrial Water Services (IWS) in Jacksonville, Florida for proper disposal. The steel roof and walls of the tank were demolished and properly disposed of, leaving only the steel tank bottom (approximately 0.5-inches thick) and the one-foot thick concrete pad. Copies of the

Limited Closure Summary Report and the Storage Tank Facility Registration Form are included in Appendices A and B, respectively. Photographic documentation of the site conditions during soil and groundwater sampling activities is included in Appendix C.

3.0 ENVIRONMENTAL MONITORING ACTIVITIES

On January 17, 2001, soil borings PB-1 through PB-8 were advanced around the perimeter of the former AST. On January 18, 2001, soil borings TB-1 through TB-5 were advanced through the concrete pad to further evaluate soil quality. Soil samples were collected during boring advancement at one-foot intervals from approximately one foot below land surface (BLS) to approximately five feet BLS using a three-inch diameter, stainless steel hand auger. The soil samples were screened with a calibrated portable Heath Tech Porta-FID IIITM Organic Vapor Analyzer with a Flame Ionization Detector (OVA-FID). Each sample was also screened with a charcoal filter to differentiate the instrument's response to naturally occurring methane vapors. The difference between the readings is the vapor concentration attributed to petroleum hydrocarbons. In addition to the OVA-FID screening, each sample was inspected for signs of hydrocarbon staining and unusual odors. Soil sample collection and screening activities were conducted in accordance with AEROSTAR's FDEP-approved Comprehensive Quality Assurance Project Plan (CQAPP) #940023G.

Hydrocarbon vapors were detected above the State target level of 10 parts per million (ppm), established as a "positive field screening result" in Chapter 62-770, Florida Administrative Code (FAC). Maximum vapor concentrations detected in soil samples collected from the vadose zone ranged from 1260 ppm to 3600 ppm. Results of the soil vapor screening are included in Table 1. The soil sample locations are shown in Figure 2.

Soil samples exhibiting the highest OVA responses from each borehole were collected for laboratory analyses. The samples were submitted to Environmental Conservation Laboratories, Inc. (Enco) in Jacksonville, Florida for analyses of the parameters listed in EPA Method 5035/8021A for Volatile Organic Aromatics (VOAs), EPA Method 8310 for Polynuclear Aromatic Hydrocarbons (PAHs), and Total Recoverable Petroleum Hydrocarbons (TRPHs) by the FL-PRO Method. Soil sampling

activities were conducted in accordance with AEROSTAR's FDEP-approved CQAPP #940023G.

Volatile and semi-volatile organic compounds and TRPH constituents were detected above State cleanup target levels in soil samples collected from the area of the former AST. Soil analytical results are summarized in Table 2. The laboratory analytical reports are included in Appendix D.

On January 17 and 18, 2001, thirteen temporary wells (PB-1 through PB-8 and TB-1 through TB-5) were installed at the locations of the soil borings, as shown in Figure 2. The temporary wells were installed approximately eight feet BLS using a three-inch diameter, stainless steel hand auger. The water table surface was encountered at approximately 5.5 feet BLS during the assessment activities. Groundwater samples were collected from the temporary wells for analyses of the parameters listed in EPA Method 601 for volatile organic hydrocarbons (VOHs), EPA Method 602 for VOAs, EPA Method 610 for PAHs, EPA Method 504 for ethylene dibromide, TRPH by the FL-PRO Method, and EPA Method 200.7 for total lead. The samples were collected using disposable bailers after purging each well of five well volumes to ensure representative samples of actual aquifer conditions. The samples to be analyzed for total lead were collected by the quiescent sampling method using an adjustable-flow peristaltic pump to minimize sample turbidity. Groundwater sampling activities were conducted in accordance with AEROSTAR's FDEP-approved CQAPP #940023G.

Results of the groundwater analyses showed hydrocarbons concentrations above State cleanup target levels in the samples collected in the area of the AST. Groundwater analytical results with corresponding State target levels are summarized in Table 3. Laboratory analytical reports are included in Appendix D.

4.0 RECOMMENDATIONS

Petroleum hydrocarbon concentrations were detected above the State target levels established in Chapter 62-777, FAC, in the groundwater and soil samples collected for this investigation. Based on the results of the tank closure, further assessment activities are recommended for the area of the former AST system.

TABLES

TABLE 1: SOIL SCREENING SUMMARY

Facility Name: Mayport AST Closure /Tank #202

Facility ID No: 168626008

	SAMPLE			OVA SO	REENING RI	ESULTS	
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (FBLS)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	COMMENTS
TB-1	1/18/01	~5.5	1	NA 1995	NA	NA 1010	TB-1 = Tank Bottom Sampling Location 1
			3	1325 2350	15 10	1310 2340	
			4	2525	0	2525	
			5	2175	0	2175	
TB-2	1/18/01	~5.5	1	NA	NA	NA	Concrete Bottom ~12-in. Thick
			2	1900	40	1860	
			3	1200	70	1130	
		ļ	<u>4</u> 5	1550 500	45 60	1505 440	
TB-3	1/18/01	~5.5	1	NA	NA NA	NA NA	Concrete Bottom ~12-in. Thick
			2	3500	0	3500	
			3	1700	0	1700	
			4	2800	0	2800	
A OT	1 /1 9 /01	~5.5	5 1	3600 NA	0 NA	3600 NA	Concrete Bottom ~12-in. Thick
TB-4	1/18/01	~5.5	2	1600	5 S	1595	Concrete Bottom ~12-m. Trick
			3	2000	0	2000	
			4	1250	0	1250	
			5	1200	0	1200	
TB-5	1/18/01	~5.5	1	NA	NA	NA	Concrete Bottom ~12-in. Thick
			2	1150	12	1138	
			3 4	2400 2800	8	2392 2800	
			5	2300	0	2300	
PB-1	1/17/01	~6.5	1	7	0	7	PB-1 = Perimeter Boring 1
			2	180	0	180	
			3	110	0	110	
an randon			4	240	0	240	
			5 6	230	0	230	
PB-2	1/17/01	~5.5	1	145 110	0	145 110	
10-2	1/1//01	3.3	2	220	0	220	
			3	260	0	260	
			4	220	0	220	
			5	290	0	290	
PB-3	1/17/01	~5.5	1	180 360	2	178 324	
			3	1300	36 38	1262	
			4	1850	150	1700	
			5	1400	140	1260	
PB-4	1/17/01	~5.5	1	60	0	60	
			2	40	0	40	
			3	35	0	35	
			<u>4</u> 5	40 280	0	40 280	
PB-5	1/17/01	~5.5	1	6	0	6	
		3.0	2	2	0	2	
			3	1	0	1	
			4	2	0	2	
			5	35	0	35	*
PB-6	1/17/01	~5.5	1	2	0	0	
			3	0	0	0	
			4	0	0	0	
			5	0	0	0	
PB-7	1/17/01	~5.5	1	8	0	8	
			2	200	5	195	
			3 4	250	3 8	247 742	
			5	750 1400	22	1378	
PB-8	1/17/01	~5.5	1	0	0	0	
			2	0	0	0	
			3	0	0	0	
			4	24	0	24	
			5	0	0	0	

TABLE 2: SOIL ANALYTICAL SUMMARY

Facility ID Number: 168626008

Facility Name: Mayport Tank Closure/Tank #202

Г	*******		Π	Π	Γ		Π						Γ							Γ	T
			Comments		ere mar ere ere ere er er er er er er er er er		Dil. X 500/10/5	Dil. X 1.18	Dil. X 5000/100/50	Dii. X 1.18	Dil. X 500/100/50	Dif. X 1000/100/50	Dil. X 500/10/50	Dil. X 1000/100/50	Dil. X 1000/10/50	Dil. X 500	Dil. X 1.35	Dil. X 1000/50/100	Dil. X500/10/5		
		TRPH	(mg/kg)	340	2500	340	1400	12	22000	8.3	4400	14000	8300	12000	11000	210	6.9>	13000	1000		+
		Pyrene	(mg/kg)	2200	37000	880	<0.037	0.012	1.4	0.07	0.38	7.5	4.2	2	1	0.032	<0.0034	12	0.16		
	Fluor-	anthene	(mg/kg)	2900	48000	1200	<0.037	0.014	5.5	0.071	0.21	9.4	5.1	2.6	1.1	0.024	<0.0034	15	0.15		
		Fluorene	(mg/kg)	2200	28000	160	<0.037	<0.0037	<0.38	0.01	<0.034	<0.36	<0.042	<0.36	0.43	0.028	<0.0034	0.17	<0.045		
	2-Methyl-	naothalene	(mg/kg)	80	560	6.1	8.6	0.05	130	0.049	28	50	54	06	37	0.053	<0.034	83	<0.45		
	1-Methyl-	napthalene	(mg/kg)	89	470	2.2	5.6	0.047	88	0.045	19	42	39	72	41	0.039	<0.034	54	<0.45		
	Naph-	tha ene	(mg/kg)	40	270	1.7	<0.180	<0.018	6>	<0.018	<0.170	8	16	8>	<0.17	<0.017	<0.017	83	<0.23		İ
		MTBE	(mg/kg)	3200	22000	₹ 0.2	<0.56	<0.00X	<5.7	<0.0013	<0.520	<1.1	<0.63	<1.1	<1.0	<0.53	<0.0014	<1.0	<0.68		
	Total	Xylenes	(mg/kg)	2900	40000	0.2	<1.66	<0.004	<16.7	<0.0039	<1.52	<3.3	<1.93	<3.3	3.1	<1.53	<0.0042	<3.1	<2.08		
	Ethyl-	penzene	(mg/kg)	1100	8400	9.0	<0.56	<0.0013	<5.7	<0.0013	<0.520	<1.1	<0.63	<1.1	<1.0	<0.53	<0.0014	<1.0	<0.68		
		Toluene	(mg/kg)	380	2600	0.5	<0.56	<0.0013	<5.7	<0.0013	<0.520	<1.1	<0.63	<1.1	<1.0	<0.53	<0.0014	<1.0	<0.68		
		Benzene	(mg/kg)	1.1	1.6	0.007	<0.56	<0.0013	<5.7	<0.0013	<0.520	<1.1	<0.63	<1.1	<1.0	<0.53	<0.0014	<1.0	<0.68		
OVA	Net OVA	Reading	(mg/kg)				2525	1860	3600	2000	2800	240	290	1700	280	35	0	1378	24		
	Sample	Interval	(tp:s)				4	2	ų,	(°)	4	4	Œ)	4	LL)	u)	E)	ĽΩ	4		
	Depth	to	Water (ft)	ure Limits	sure Limits	ar Limits	~4.5	~4.5	~4.5	~4.5	~4.5	~4.5	-4.5	~4.0	~4.5	~4.5	~4.5	~4.5	~4.5		
Sample	Date	Collected		Residenital Direct Exposure Limits	Commercial Direct Exposure Limits	eachability Groundwater Limits	1/18/01	1/18/01	1/18/01	1/18/01	1/18/01	1/18/01	1/18/01	1/18/01	1/18/01	1/18/01	1/18/01	1/18/01	1/18/01		
	Sample	Q		Residenital	Commercia	Leachability	TB-1	TB-2	TB-3	TB-4	TB-5	PB-1	PB-2	PB-3	PB:4	PB-5	PB·6	PB.7	PB-8		

TABLE 3: GROUNDWATER LABORATORY ANALYTICAL SUMMARY

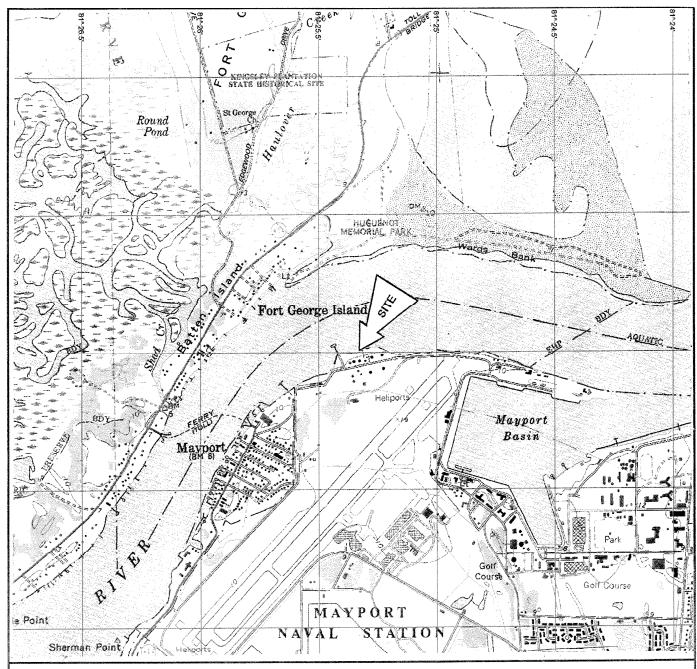
Facility Name: Mayport Tank Closure/Tank #202

Facility ID No: 168626008

Not Analyzed = NA All results in micrograms per liter (ug/L)

Sa	Sample			Ethyl-	Total		Naph-	1-Methyl	2-Methyl		Fluor-				TRPH	
ocation	Date	Benzene	Toluene	penzene	Xylenes	MTBE	thalene	napthalene	napthalene	Fluorene	anthene	Pyrene	Lead	EDB	mdd	
		+	40	30	20	20	20	20	20	280	280	210	15	0.02	5000	Comments
TB-1	01/13/01	<500	<500	<500	<1000	<1000	<0.50	860	1300	<0.10	12	7.2	9	<0.020	190	Dit. X 50
B.2	01/13/01	<1.0	<1.0	<1.0	<2.0	<2.0	0.65	5.0	6.9	<0.10	0.3	0.27	10	<0.020	<0.20	
18.3	01/13/01	<500	<500	<500	<1000	<1000	<0.50	820	1200	<0.10	5.9	6.4	<5.0	<0.020	160	Dil. X 500/50
TB:4	01/13/01	<5.0	<5.0	<5.0	<10	<10	40	190	240	<0.10	3.8	2.2	<5.0	<0.020	6.6	Dit. X 10/5
TB-5	01/13/01	<10	<10	<10	<20 20	<20	<50	4800	7200	<10	280	68	<5.0	<0.020	430	Dil. X 100/50/10
PB-1	01/13/01	<5.0	<5.0	<5.0	<10	<10	<0.50	76	31	<0.10	1.8	1.5	<5.0	<0.020	4.2	Dif. X 10/5
PB.2	01/13/01	<1.0	<1.0	<1.0	<2.0	<2.0	<0.50	51	<1.0	<0.10	2.8	2.4	<5.0	<0.020	4.7	
PB.3	01/13/01	<1000	<1000	<1000	<2000	<2000	1.1	740	870	<0.10	17	16	<5.0	<0.020	94	DI. X 1000/50/10
PB.4	01/13/01	<500	<500	<500	<1000	<1000	220	580	640	<0.10	2.4	8.3	<5.0	<0.020	99	Dil. X 500/50/10
PB.5	01/13/01	<15	<10	<10	<20	<20	4.0	130	17	<0.10	0.29	0.58	<5.0	<0.020	5.7	Dil. X 10
PB-6	01/18/01	<5.0	<5.0	<5.0	<10	<10	5.8	45	<1.0	<0.10	<0.10	<0.10	<5.0	<0.020	1.8	Dil. X 5
PB.7	01/18/01	<500	<500	<500	<1000	<1000	96	390	530	<0.10	20	5.8	<5.0	<0.020	130	Dil. X 500/50/20
PB.8	01/18/01	<1.0	<1.0	<1.0	<2.0	<2.0	<0.50	<1.0	<1.0	<0.10	0.19	0.14	<5.0	<0.020	<0.20	
			_									_	_			

FIGURES



MAYPORT QUADRANGLE

30081-B5-TF-024

PHOTOREVISED 1982

DMA 4744 IV NW-SERIES V847

7.5 MINUTE SERIES (TOPOGRAPHIC)

CONTOUR INTERVAL 10 FEET





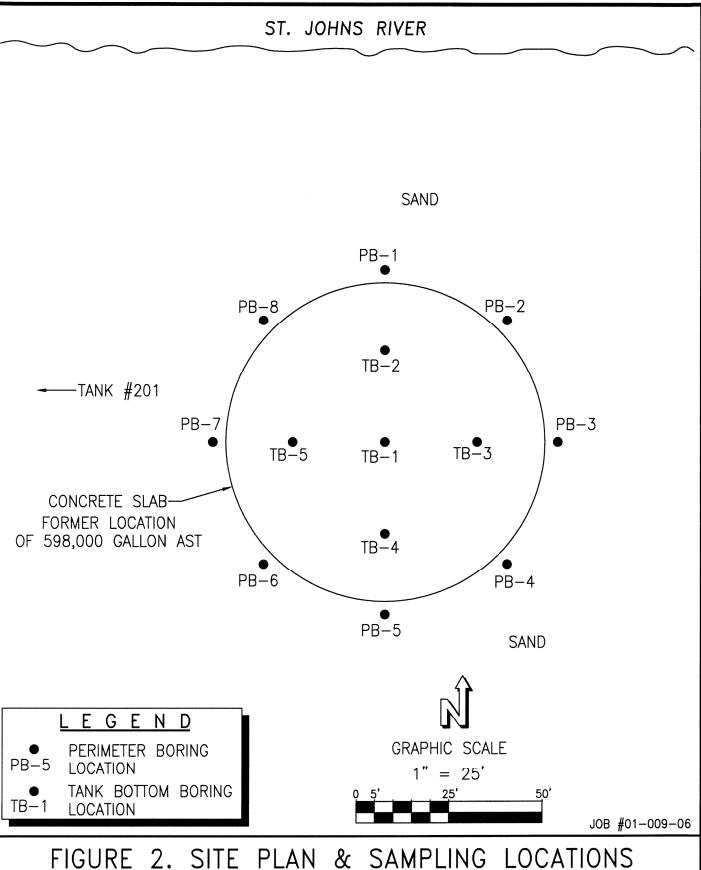
NATIONAL GEODETIC VERTICAL DATUM OF 1929

FIGURE 1 TOPOGRAPHIC SITE LOCATION MAP



MAYPORT TANK CLOSURE #202 MAYPORT NAVAL STATION DRAWN BY: JJR

REFERENCE: MAP OF MAYPORT, FLORIDA PREPARED BY: U. S. GEOLOGICAL SURVEY





MAYPORT AST CLOSURE/TANK #202 MAYPORT NAVAL AIR STATION JACKSONVILLE, FLORIDA

DRAWN BY: KJS

DATE: 02/25/01

APPENDIX A LIMITED CLOSURE SUMMARY REPORT



Department of Environmental Protection

DEP Form 62-761.900(8) Form Title: Limited Closure Summary Report: Effective Date: July 13, 1998

n Towers Office Building ♦ 2600 Blair Stone Road ♦ Tallahassee, Florida 32399-2400

Limited Closure Summary Report

This form is required for facilities that have sites with documented contamination requiring a site assessment in accordance with Chapter 62-770, F.A.C. This includes those facilities that are eligible for the Early Detection Incentive Program (EDI), the Florida Petroleum Liability and Restoration Insurance Program (FPLRIP), and the Petroleum Cleanup Participation Program (PCPP), pursuant to Sections 376.3071 and 376.3072, F.S. Documentation of procedures followed, and results obtained during closure shall be reported in this form, along with any attachments. This form shall be submitted to the County within 60 days of completion of the closure in accordance with Section A of the "Storage Tank System Closure Assessment Requirements."

General Informatio		plete All Applicable	e Blanks. Pl	ease Print o	or Type		
Date: <u>02/23/01</u>	FDEP Faci	lity ID Number: <u>68</u> 0	626008		County: DI	UVAL	
Facility Name MAYPO	RT NAVAL S	<u>STATION</u>		Facility Te	lephone #: ()	
Facility Address:						· · · · · · · · · · · · · · · · · · ·	-
Owner or Operator Name	e:			Owner/Ope	erator phone	#: ()	
Mailing Address:							25C-04030444400000000000000000000000000000
Storage Tank Syste	m Closure	<u>Information</u>					
1. Were the storage tanks	s(s): (Check o	ne or both)					
Aboveground			Under	ground		, , ,	
2 Camanal Section In Co.	da.						
General System InformatTypes of Products Stored		TIFI	Number of	Tanks: ON	E.(1)	Age(s) of Tan	ks: ~40
Types of Floducis Stored	1. <u>Jr-3 Ji: 1 r</u>	OEL	Number of	ranks. Oiv.	5 (1)	yrs.	IK3
Tank Systems Removal? Tank Systems Closed in Piping Sump Installation 4. Please Check Yes or N	Place? Di	ill Containment Install spenser Liners Installa condary Containment wing:	ition?	Release		Non-Regulated S rrier Installation?	substance:
a. Was there previously			d on site? If	yes, was		☐ Yes	PNo
1. A Discharge Re	port Form su	bmitted to the Count	ty?			☐ Yes	□ No
		n accordance with R	ule 62-761.8	20, F.A.C.?		☐ Yes	☐ No
b. Is the depth to ground						VYes	□ No
c. Are there monitoring						☐ Yes	₽No
Groundwater m		ls?	WWW.			☐ Yes	□ No
2. Vapor monitori						Yes	□ No
3. Used for closur		sampling?				☐ Yes	□ No
4. Properly closed						Yes	□ No
5. Retained for site						☐ Yes	☐ No
d. If tanks were replaced	l, were contan	ninated soils returned	d to the tank	excavation?		☐ Yes	☐ No
Signature of owner or	•		sure Assessn	nent	Name	of person performed Closure Asse	rming
(date)		(date) 2/23/2	, o I n recycled pape	Affilia	ition Aerost	ar Environm	entel S

APPENDIX B STORAGE TANK FACILITY REGISTRATION FORM



Florida Department of Environmental Protection Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

DEP Form # 62-761.900(2)
Form Title Storage Tank Registration Form
Effective Date: July 13, 1998
DEP Application No.
(Filled in by DEP)

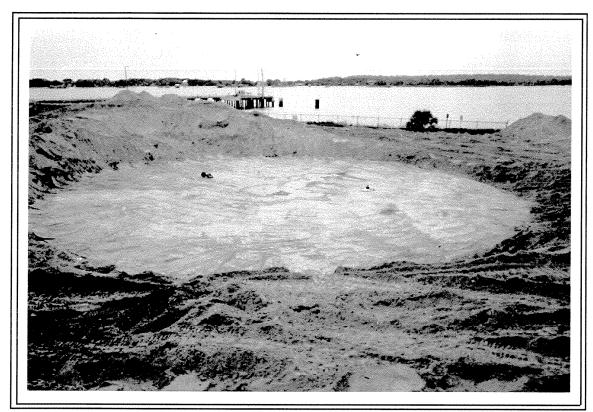
Storage Tank Facility Registration Form

Submit a completed form for the facility when registration of storage tanks or compression vessels is required by Chapter 376.303, Florida Statutes

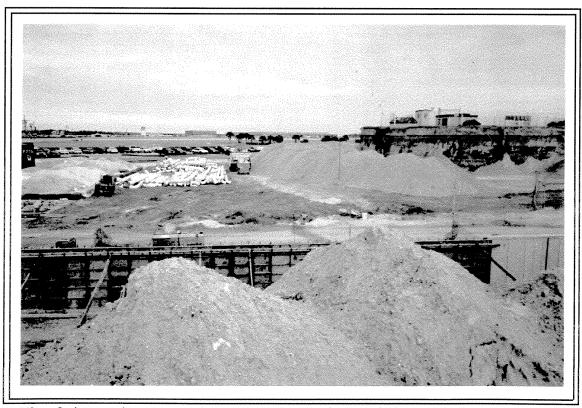
Please review Registration Instructions before completing the form.

A. FACILITY INFORM	IATION	County: DU	VAL			DEP Facil	ty ID: 16862600	8	
						<u> </u>	Incollide establis		
acility Name: MA									
acility Address:							ity: Jacksonville		
acility Contact: acility Type(s):							al Paspansibility:	*********	Business Phone:
acility Type(s).			NAIC	3 Code		Finalici	ar Nesponsibility		
4 Hour Emergency (Contact:							Emo	ergency Phone:(
3. RESPONSIBLE PI									ng operations, ar
ame:						Facility - Respo	nsible Person Relati	on Type:	Effective Date
fail address:						[√] Facility A	ccount Owner (pa	ys fees)	
ity, ST, Zip:						Facility Account	Owner information	must be pr	ovided when the
ontact:						facility con	tains active (in-use)	storage tar	nks on site.
elephone:						STCM Account	Number (if known)	
lentify other appropria	ite facility	relationships for	r this party:	[] Facility O	wner/Op	erator [] Pro	perty Owner []	Storage T	ank Owner
ame:						Other owner, re	ationship type(s)		Effective Date
lail address:		AND MANUELL DEFENDED AND A STANK				[] Facility O	wner/Operator		
ity, ST, Zip:						[] Property	Owner		
ontact:		***************************************				[] Storage T	ank Owner		
elephone:						[] Other:			
. TANK/VESSEL INF	ORMATI	ON - Complete	one row for	each storage t	ank or o	ompression ves	sel system located	at this fac	ility.
ank ID T/V	A/U	Capacity	Installed	Content	Status	/Effective Date	Construction	Piping	Monitoring
1 T	Α	598000gal	1960	F	В	01/01	C		
	-								
	1	1							
		<u></u>	L				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
ertified Contractor (pe	erforming	tank installation	or removal)			I	IREK License No.		
-	_		, .				DBPR License No.:		
-	_		, .	ge and belief, a	ıll inforr		on this form is tru	ıe, accurat	e, and complete
egistration Certifica	_		my knowledg	ge and belief, a	ill inforr			ue, accurat	e, and complete
Certified Contractor (percentifical Certifical Printed Name & Title EP 62-761.900(2) Northwest District 160 Governmental Center Bi	tion:	To the best of r	my knowledg	nature Southwes		nation submitted	on this form is tru	Date	e, and complete Marathon Branch O 2796 Overseas Hw, Suite 221

APPENDIX C PHOTOGRAPHIC DOCUMENTATION



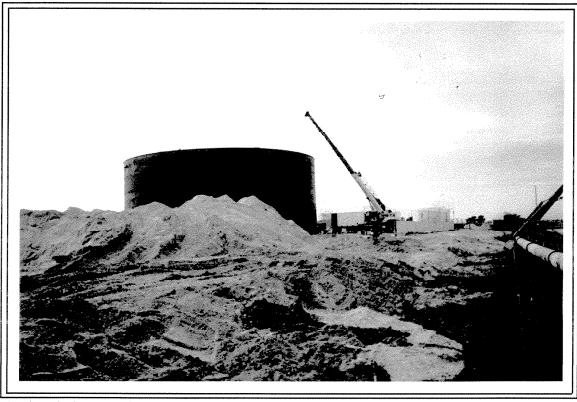
1) View facing north at Tank #202 bottom St. Johns River.



2) View facing south across newly constructed wall with base in background.



3) View facing east across newly constructed wall with St. Johns River in background.



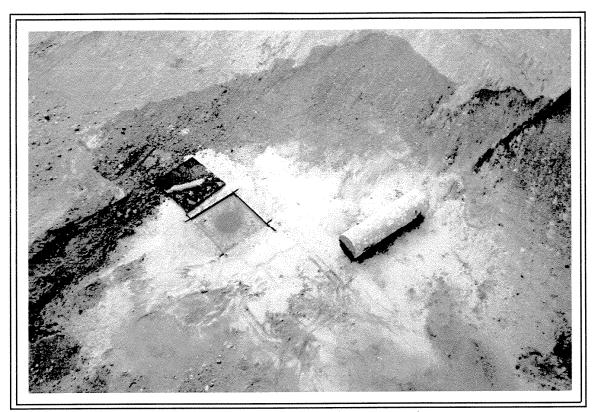
4) View facing west from Tank #202 site at newly constructed tank at location of former Tank #201.



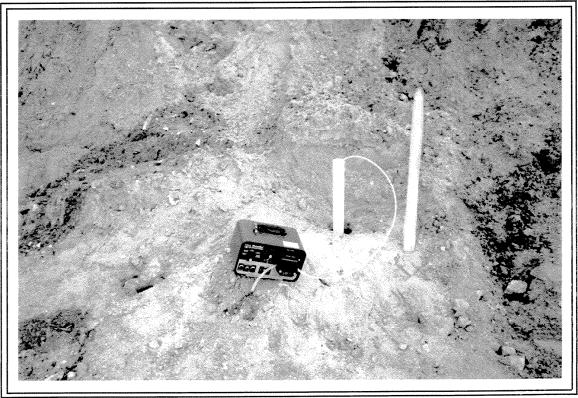
5) View facing north at soil/groundwater sampling locations in tank bottom and northern perimeter.



6) View facing southwest at soil/groundwater sampling locations.



7) View showing thickness of steel tank bottom and of concrete pad.



8) View of low-flow groundwater sampling activities at perimeter sampling location.

APPENDIX D
LABORATORY ANALYTICAL REPORTS

CLIENT : Environmental Recovery REPORT # : JAX15379

ADDRESS: 251 Levy Road DATE SUBMITTED: January 19, 2001

Atlantic Beach, FL 32233 DATE REPORTED : January 31, 2001

PAGE 1 OF 24

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT : MAYPORT NAVAL ST.

Tank Closure

01/18/01

#1		_	PB-1	(4 '	DEP	TH)	0	Đ	10	:25
#2		_	PB-2	(5 '	DEP	TH)	0	Ð	10	:25
#3		_	PB-3	(4 '	DEP	TH)	Q	D	10	:25
#4		_	PB-4	(5 '	DEP	TH)	0	Q	10	:25
#5		_	PB-5	(5 '	DEP	TH)	0	Q	10	:25
#6		_	PB-6	(5 '	DEP	TH)	0	Q	10	:25
#7		_	PB-7	(5 '	DEP	TH)	(D)	15	:10
#8		_	PB-8	(4 '	DEP	TH)	0	Q	16	:00
#9		_	TB-1	(4 '	DEP	TH)	0	Q	80	:30
#1	0	_	TB-2	(2 '	DEP	TH)	Q	Ų	09	:10
#1	1	_	TB-3	(5 '	DEP	TH)	0	Q	10	:15
#1	2	_	TB-4	(3 1	DEP	TH)	0	Ð	11	:00
#1	3		TB-5	(4 1	DEP	TH)	(4	Đ	11	:35

PROJECT MANAGER

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 2 OF 24

EPA METHOD 8260 - VOLATILE ORGANICS	PB-1 (4' DEPTH)	PB-2 (5'DEPTH)	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1100 U D1 1100 U D1 1100 U D1 1100 U D1 1100 U D1 2200 U D1 1100 U D1 1100 U D1 1100 U D1	630 U D2 630 U D2 630 U D2 630 U D2 630 U D2 1300 U D2 630 U D2 630 U D2 630 U D2 630 U D2 630 U D2	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	91 91 98 105 01/25/01	% RECOV 95 104 116 01/25/01	μg/kg <u>LIMITS</u> 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:1000 dilution. D2 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 3 OF 24

	EPA METHOD 8310 -					
gerenon.	PAH BY HPLC	<u>PB-1 (4'</u>	DE	PTH)	PB-2 (5'DEPTH	<u>) Units</u>
	Naphthalene Acenaphthylene	1800 3500		D3 D3	16000 D 420 U D	4 μg/Kg
	1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene	42000 50000 1800	U	D3 D3 D3	39000 D 54000 D 210 U D	$3 \mu g/Kg$
	Fluorene Phenanthrene Anthracene	360 3500 1800	U	D3 D3 D3	42 U D 420 U D 210 U D	$4 \mu g/Kg$
	Fluoranthene Pyrene Benzo(a)anthracene	9400 7500 2800		D3 D3 D3	5100 D 4200 D 1100 D	4 μg/Kg 4 μg/Kg
7	Chrysene Benzo(b)fluoranthene	2600 1200 810		D3 D3	980 D 450 D 270 D	4 μg/Kg 4 μg/Kg
j	Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene	1400 430		D3 D3 D3	530 D 120 D	4 μg/Kg 4 μg/Kg
	Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	940 950		D3 D3	230 D 580 D	,
	Surrogate: p-terphenyl Date Prepared Date Analyzed	<u>% REC</u> 0 01/24, 01/26,	U /01		% RECOV 0 U 01/24/01 01/26/01	<u>LIMITS</u> 39-141

MISCELLANEOUS	METHOD	PB-1 (4' DEPTH)	PB-2 (5'DEPTH)	<u>Units</u>
Percent Solids Date Analyzed	SM2540G	93 01/22/01	79 01/22/01	%

U = Compound was analyzed for but not detected to the level shown.

D3 = Analyte value determined from a 1:100 dilution.

D4 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 4 OF 24

RESULTS OF ANALYSIS

EPA METHOD FLPRO -<u>PB-2 (5'DEPTH)</u> <u>Units</u> PB-1 (4' DEPTH) PETROL. RESIDUAL ORG. mg/Kg 8300 D5 14000 D5 Hydrocarbons (C8-C40) % RECOV LIMITS % RECOV Surrogate: 51-148 o-Terphenyl 01/23/01 01/23/01 Date Prepared 01/24/01 01/24/01 Date Analyzed

^{* =} Surrogate recovery unavailable due to sample dilution.

U = Compound was analyzed for but not detected to the level shown.

D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001
REFERENCE: MAYPORT NAVAL ST.
PROJECT NAME: Tank Closure

PAGE 5 OF 24

EPA METHOD 8260 - VOLATILE ORGANICS	PB-3 (4'DEPTH)	PB-4 (5'DEPTH)	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1100 U D1 1100 U D1 1100 U D1 1100 U D1 1100 U D1 2200 U D1 1100 U D1 1100 U D1 1100 U D1 1100 U D1	1000 U D1 1000 U D1 1000 U D1 1000 U D1 1000 U D1 2100 U D1 1000 U D1 1000 U D1 1000 U D1 1000 U D1	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	% RECOV 92 100 107 01/25/01	<pre>% RECOV 94 100 108 01/25/01</pre>	<u>LIMITS</u> 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown. D1 = Analyte value determined from a 1:1000 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 6 OF 24

EPA METHOD 8310 -			
PAH BY HPLC	PB-3 (4'DEPTH) PB-4 (5'DEPT)	H) <u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Penzo(b) fluoranthene	1800 U D 3500 U D 72000 D 90000 D 1800 U D 360 U D 3500 U D 2600 D 2800 U D 1800 U D 360 U D 360 U D	3 170 U 13 350 U 13 37000 13 170 U 13 1100 13 170 U 13 17	104 μg/Kg 104 μg/Kg 103 μg/Kg 103 μg/Kg 104 μg/Kg
Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	360 U D 360 U D 360 U D 360 U D 360 U D	3 35 U 1 3 35 U 1 3 35 U 1	04 μg/Kg 04 μg/Kg 04 μg/Kg 04 μg/Kg 04 μg/Kg
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 0 U 01/24/01 01/26/01	% RECOV 136 01/24/01 01/26/01	<u>LIMITS</u> 39-141

MISCELLANEOUS	METHOD	PB-3 (4'DEPTH)	PB-4 (5'DEPTH)	<u>Units</u>
Percent Solids Date Analyzed	SM2540G	93 01/22/01	95 01/22/01	૪

U = Compound was analyzed for but not detected to the level shown.

D3 = Analyte value determined from a 1:100 dilution.

D4 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 7 OF 24

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	PB-3 (4'DEPTH)	PB-4 (5'DEPTH)	<u>Units</u>
Hydrocarbons (C8-C40)	12000 D5	11000 D5	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV * 01/23/01 01/24/01	% RECOV * 01/23/01 01/24/01	LIMITS 51-148

^{* =} Surrogate recovery unavailable due to sample dilution.

U = Compound was analyzed for but not detected to the level shown. D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 8 OF 24

EPA METHOD 8260 -			
VOLATILE ORGANICS	<u>PB-5 (5'DEPTH)</u>	PB-6 (5'DEPTH)	<u>Units</u>
Methyl tert-butyl ether	530 U D2	1.4 U D6	μg/Kg
Benzene	530 U D2	1.4 U D6	μg/Kg
Toluene	530 U D2	1.4 U D6	μg/Kg
Chlorobenzene	530 U D2	1.4 U D6	μ g/Kg
Ethylbenzene	530 U D2	1.4 U D6	μg/Kg
m-Xylene & p-Xylene	1000 U D2	2.8 U D6	μg/Kg
o-Xylene	530 U D2	1.4 U D6	μg/Kg
1,3-Dichlorobenzene	530 U D2	1.4 U D6	μg/Kg
1,4-Dichlorobenzene	530 U D2	1.4 U D6	$\mu g/Kg$
1,2-Dichlorobenzene	530 U D2	1.4 U D6	μg/Kg
Surrogate:	% RECOV	% RECOV	<u>LIMITS</u>
Dibromofluoromethane	94	93	70-134
D8-Toluene	100	96	60-144
Bromofluorobenzene	99	94	71-127
Date Analyzed	01/25/01	01/25/01	

U = Compound was analyzed for but not detected to the level shown.
D2 = Analyte value determined from a 1:500 dilution.
D6 = Analyte value determined from a 1:1.35 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST. PROJECT NAME: Tank Closure

PAGE 9 OF 24

EPA METHOD 8310 - PAH BY HPLC		PB-5 (5'DEPTH)	PB-6 (5'DEPTH)	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene		17 U 35 U 39 53 17 U 28 35 U 17 U 24 32 17 U 3.5 U 3.5 U 3.5 U	17 U 34 U 34 U 17 U 3.4 U 34 U 17 U 3.4 U 17 U 3.4 U 3.4 U 3.4 U 3.4 U 3.4 U 3.4 U	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
Dibenzo(a,h)anthrace Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyre	9	3.5 U 3.5 U 3.5 U 3.5 U	3.4 U 3.4 U 3.4 U 3.4 U	μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: p-terphenyl Date Prepared Date Analyzed		% RECOV 100 01/24/01 01/27/01	% RECOV 93 01/24/01 01/26/01	<u>LIMITS</u> 39-141
MISCELLANEOUS Percent Solids Pate Analyzed	METHOD SM2540G	PB-5 (5'DEPTH) 95 01/22/01	PB-6 (5'DEPTH) 96 01/22/01	<u>Units</u> %
Date Analyzed		01/22/01	01/22/01	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 10 OF 24

RESULTS OF ANALYSIS

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	PB-5 (5'DEPTH)	PB-6 (5'DEPTH)	<u>Units</u>
Hydrocarbons (C8-C40)	210	6.9 U	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV 98 01/23/01 01/24/01	<pre>% RECOV 82 01/23/01 01/24/01</pre>	<u>LIMITS</u> 51-148

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 11 OF 24

EPA METHOD 8260 - VOLATILE ORGANICS	PB-7 (5'DEPTH)	PB-8 (4'DEPTH)	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1000 U D1 1000 U D1 1000 U D1 1000 U D1 1000 U D1 2100 U D1 1000 U D1 1000 U D1 1000 U D1	680 U D2 680 U D2 680 U D2 680 U D2 680 U D2 1400 U D2 680 U D2 680 U D2 680 U D2 680 U D2	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	<pre>% RECOV 94 98 106 01/25/01</pre>	<pre>% RECOV 95 99 101 01/25/01</pre>	LIMITS 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:1000 dilution.

D2 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001
REFERENCE : MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 12 OF 24

EPA METHOD 8310 -				
PAH BY HPLC	<u>PB-7 (5'DEP</u>	TH)	PB-8 (4'DEPTH	I) <u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2 Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene	20000 1700 U 54000 83000 870 U 1700 U 1700 U 870 U 15000 12000 4600 4100 1600 1000 1900 530 1000	D5 D5 D5 D5 D5 D5 D5 D5 D5 D5 D5	230 U E 450 U E 450 U E 230 U E 45 U E 230 U E 230 U E 230 U E 230 U E 230 U E 45 U E	μg/Kg
Indeno(1,2,3-cd)pyrene	1100	D5	45 U D	04 μg/Kg
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 0 U 01/24/01 01/26/01	_	<u>% RECOV</u> 85 01/24/01 01/26/01	<u>LIMITS</u> 39-141

MISCELLANEOUS	METHOD	PB-7 (5'DEPTH)	PB-8 (4'DEPTH)	<u>Units</u>
Percent Solids Date Analyzed	SM2540G	95 01/22/01	73 01/22/01	રુ

U = Compound was analyzed for but not detected to the level shown.

D4 = Analyte value determined from a 1:10 dilution.

D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 13 OF 24

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	PB-7 (5'DEPTH)	PB-8 (4'DEPTH)	Units
Hydrocarbons (C8-C40)	13000 D3	1000 D7	mg/Kg
Surrogate: o Terphenyl Date Prepared	% RECOV	% RECOV	<u>LIMITS</u> 51-148
Date Prepared Date Analyzed	01/23/01 01/24/01	01/23/01 01/24/01	

^{* =} Surrogate recovery unavailable due to sample dilution.
U = Compound was analyzed for but not detected to the level shown.
D3 = Analyte value determined from a 1:100 dilution.
D7 = Analyte value determined from a 1:5 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 14 OF 24

EPA METHOD 8260 - VOLATILE ORGANICS	TB-1 (4'DEPTH)	TB-2 (2'DEPTH)	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	560 U D2 560 U D2 560 U D2 560 U D2 560 U D2 1100 U D2 560 U D2 560 U D2 560 U D2 560 U D2 560 U D2	1.3 U D8 1.3 U D8	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	<u>% RECOV</u> 95 98 108 01/25/01	<u>% RECOV</u> 67 97 100 01/25/01	LIMITS 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:500 dilution.

D8 = Analyte value determined from a 1:1.18 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 15 OF 24

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	TB-1 (4'DEPTH)	TB-2 (2'DEPTH)	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	180 U D4 370 U D4 5600 D4 8600 D4 180 U D4 37 U D4 37 U D4 180 U D4 37 U D4	18 U 37 U 47 50 18 U 3.7 U 37 U 18 U 14 12 18 U 3.7 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: p-terphenyl Date Prepared Date Analyzed	<pre>% RECOV 80 01/24/01 01/26/01</pre>	<pre>% RECOV 85 01/24/01 01/27/01</pre>	<u>LIMITS</u> 39-141
MISCELLANEOUS METHO	D TB-1 (4'DEPTH)	TB-2 (2'DEPTH)	<u>Units</u>
	00	89	8

MISCELLANEOUS	<u>METHOD</u>	TB-1 (4'DEPTH)	TB-2 (2'DEPTH)	<u>Units</u>
Percent Solids Date Analyzed	SM2540G	90 01/22/01	89 01/22/01	%

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 16 OF 24

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	TB-1 (4'DEPTH)	TB-2 (2'DEPTH)	Units
Hydrocarbons (C8-C40)	1400 D7	12	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV * 01/25/01 01/29/01	<pre>% RECOV 98 01/25/01 01/29/01</pre>	LIMITS 51-148

^{* =} Surrogate recovery unavailable due to sample dilution.

U = Compound was analyzed for but not detected to the level shown. D7 = Analyte value determined from a 1:5 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001
REFERENCE: MAYPORT NAVAL ST.
PROJECT NAME: Tank Closure

PAGE 17 OF 24

EPA METHOD 8260 - VOLATILE ORGANICS	TB-3 (5'DEPTH)	TB-4 (3'DEPTH)	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	5700 U D9 5700 U D9 5700 U D9 5700 U D9 5700 U D9 11000 U D9 5700 U D9 5700 U D9 5700 U D9 5700 U D9	1.3 U D8 1.3 U D8 1.3 U D8 1.3 U D8 1.3 U D8 2.6 U D8 1.3 U D8 1.3 U D8 1.3 U D8 1.3 U D8	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	% RECOV 84 94 106 01/25/01	% RECOV 82 97 99 01/25/01	<u>LIMITS</u> 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

D8 = Analyte value determined from a 1:1.18 dilution.

D9 = Analyte value determined from a 1:5000 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 18 OF 24

EPA METHOD 8310 - PAH BY HPLC	TB-3 (5'DEPTH)	TB-4 (3'DEPTH)	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	1900 U D3 3800 U D3 88000 D3 130000 D3 1900 U D3 380 U D3 380 U D3 1900 U D3 5500 D3 1400 D3 1900 U D3 380 U D3	18 U 35 U 45 49 18 U 10 98 18 U 71 70 21 17 8.0 3.5 U 3.5 U 3.5 U 3.5 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 0 U 01/24/01 01/26/01	% RECOV 95 01/24/01 01/27/01	<u>LIMITS</u> 39-141
		mp 4 /3!DED#U)	IInita

MISCELLANEOUS	METHOD	TB-3 (5'DEPTH)	TB-4 (3'DEPTH)	<u>Units</u>
Percent Solids Date Analyzed	SM2540G	88 01/22/01	94 01/22/01	૪

U = Compound was analyzed for but not detected to the level shown. D3 = Analyte value determined from a 1:100 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 19 OF 24

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	TB-3 (5'DEPTH)	TB-4 (3'DEPTH)	Units
Hydrocarbons (C8-C40)	22000 D5	8.3	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV * 01/25/01 01/29/01	<pre>% RECOV 128 01/25/01 01/29/01</pre>	<u>LIMITS</u> 51-148

^{* =} Surrogate recovery unavailable due to sample dilution.

U = Compound was analyzed for but not detected to the level shown. D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 20 OF 24

EPA METHOD 8260 -			
VOLATILE ORGANICS	TB-5 (4'DEPTH)	<u>LAB BLANK</u>	<u>Units</u>
			,
Methyl tert-butyl ether	520 U D2	100 U D3	μg/Kg
Benzene	520 U D2	100 U D3	μg/Kg
Toluene	520 U D2	100 U D3	μg/Kg
Chlorobenzene	520 U D2	100 U D3	μg/Kg
Ethylbenzene	520 U D2	100 U D3	μg/Kg
m-Xylene & p-Xylene	1000 U D2	200 U D3	μg/Kg
o-Xylene	520 U D2	100 U D3	μg/Kg
1,3-Dichlorobenzene	520 U D2	100 U D3	μg/Kg
1,4-Dichlorobenzene	520 U D2	100 U D3	μg/Kg
1,2-Dichlorobenzene	520 U D2	100 U D3	μg/Kg
Surrogate:	% RECOV	% RECOV	LIMITS
Dibromofluoromethane	92	95	70-134
D8-Toluene	96	98	60-144
Bromofluorobenzene	110	99	71-127
Date Analyzed	01/25/01	01/24/01	, ,

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:500 dilution.

D3 = Analyte value determined from a 1:100 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001
REFERENCE: MAYPORT NAVAL ST.
PROJECT NAME: Tank Closure

PAGE 21 OF 24

EPA METHOD 8310 -			
PAH BY HPLC	TB-5 (4'DEPTH)	<u>LAB</u> <u>BLANK</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene	170 U D4 340 U D4 19000 D4 28000 D3 170 U D4 34 U D4 340 U D4 170 U D4	16 U 33 U 33 U 33 U 16 U 3.3 U 33 U 16 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	210 D4 380 D4 170 U D4 34 U D4	3.3 U 3.3 U 16 U 3.3 U 3.3 U 3.3 U 3.3 U 3.3 U 3.3 U 3.3 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: p-terphenyl Date Prepared Date Analyzed	<u>% RECOV</u> 116 01/24/01 01/26/01	% RECOV 93 01/24/01 01/25/01	<u>LIMITS</u> 39-141

MISCELLANEOUS	<u>METHOD</u>	TB-5 (4'DEPTH)	LAB BLANK	<u>Units</u>
Percent Solids Date Analyzed	SM2540G	97 01/22/01	NA	%

U = Compound was analyzed for but not detected to the level shown.

D3 = Analyte value determined from a 1:100 dilution.

D4 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE: MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 22 OF 24

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	TB-5 (4'DEPTH)	LAB BLANK	<u>Units</u>
Hydrocarbons (C8-C40)	4400 D5	6.6 U	mg/Kg
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV * 01/25/01 01/29/01	<pre>% RECOV 94 01/23/01 01/23/01</pre>	LIMITS 51-148

^{* =} Surrogate recovery unavailabe due to sample dilution.
U = Compound was analyzed for but not detected to the level shown.
D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001
REFERENCE: MAYPORT NAVAL ST.
PROJECT NAME: Tank Closure

PAGE 23 OF 24

RESULTS OF ANALYSIS

EPA METHOD 8260 - VOLATILE ORGANICS	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Analyzed	% RECOV 97 97 100 01/25/01	<u>LIMITS</u> 70-134 60-144 71-127
EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	LAB BLANK	<u>Units</u> mg/Kg
Hydrocarbons (C8-C40) Surrogate: o-Terphenyl Nonatriacontane Date Prepared Date Analyzed	6.6 U **RECOV 82 84 01/25/01 01/29/01	LIMITS 51-148 36-152

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15379

DATE REPORTED: January 31, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 24 OF 24

QUALITY CONTROL DATA

<u>Parameter</u>	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD <u>MS/MSD</u>	ACCEPT LIMITS
EPA Method 8260				
1,1-Dichloroethene	89/ 92/ 92	44-169	3	19
Benzene	105/102/104	50-140	3	23
Trichloroethene	102/103/101	75-125	<1	17
Toluene	98/ 99/100	56-139	1	22
Chlorobenzene	100/ 99/100	73-123	1	24
EPA Method 8260				
1,1-Dichloroethene	88/ 88/ 91	44-169	<1	19
Benzene	106/106/109	50-140	<1	23
Trichloroethene	96/ 97/101	75-125	1	17
Toluene	97/101/103	56-139	4	22
Chlorobenzene	98/103/102	73-123	5	24
EPA Method 8310				
Naphthalene	78/ 73/ 75	48-130	7	20
Λcenaphthene	70/ 67/ 83	36-127	4	17
Benzo(a)pyrene	67/ 67/ 68	64-141	<1	22
Benzo(g,h,i)perylene	94/ 97/ 98	58-168	3	21
PETROL. RESIDUAL ORG.				
Hydrocarbons (C8-C40)	73/ 86/ 80	62-204	16	25
PETROL. RESIDUAL ORG.			_	0.5
Hydrocarbons (C8-C40)	86/ 81/ 75	62-204	6	25

Environmental Conservation Laboratories Comprehensive QA Plan #910190

= Less Than MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

CLIENT : Environmental Recovery REPORT # : JAX15380

ADDRESS: 251 Levy Road DATE SUBMITTED: January 19, 2001

Atlantic Beach, FL 32233

DATE REPORTED: January 31, 2001

PAGE 1 OF 37

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT #: 2624 2828

MAYPORT AST CLOSURE

```
- PB-1 @ 09:30 (01/18/01)
#1
     - PB-2 @ 10:15 (01/18/01)
#2
     - PB-3 @ 11:15 (01/18/01)
#3
     - PB-4 @ 12:00 (01/18/01)
#4
     - PB-5 @ 13:12 (01/18/01)
#5
     - PB-6 @ 14:00 (01/18/01)
#6
     - PB-7 @ 15:20 (01/18/01)
#7
#8
     - PB-8 @ 16:10 (01/18/01)
     - PB-9 @ 17:00 (01/18/01)
#9
     - TB-1 @ 08:20 (01/19/01)
#10
    - TB-2 @ 08:50 (01/19/01)
#11
    - TB-3 @ 09:15 (01/19/01)
#12
#13 - TB-4 @ 09:50 (01/19/01)
#14 - TB-5 @ 10:15 (01/19/01)
```

PROJECT MANAGER ____

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 2 OF 37

EPA METHOD 601 - VOLATILE HALOCARBONS	PB-1	<u>PB-2</u>	<u>Units</u>
VOLATILE MADOCARDOND	± 12 ±	<u> </u>	<u> </u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethene C-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethene Trichloroethene	5.0 U D1 5.0 U D1 5.0 U D1 5.0 U D1 5.0 U D1 10 U D1 5.0 U D1	1.0 U	μα/L μα/L
1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	5.0 U D1 5.0 U D1	1.0 U	μα/L μα/L μα/L μα/L μα/L μα/L μα/L μα/L
<u>Surrogate:</u> Bromofluorobenzene Date Analyzed	<pre>% RECOV 95 01/30/01</pre>	% RECOV 109 01/27/01	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:5 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 3 OF 37

EPA METHOD 602 - VOLATILE AROMATICS	<u>PB-1</u>	<u>PB-2</u>	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	10 U D1 5.0 U D1	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μα/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 109 01/30/01	% RECOV 110 01/27/01	<u>LIMITS</u> 52-147

U = Compound was analyzed for but not detected to the level shown. D1 = Analyte value determined from a 1:5 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 4 OF 37

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	<u>PB-1</u>	<u>PB-2</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a, h) anthracene Benzo(g, h, i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 76 D2 31 0.50 U 0.10 U 1.0 U 0.20 U 1.8 1.5 0.30 0.42 0.10 U	0.50 U 1.0 U 51 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 2.8 2.4 0.40 0.49 0.10 U	μα/L μα/L μασ/L μα/L μασ/L μα/L μα/L μα/L μα/L μα/L μα/L μα/L μα
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 83 01/22/01 01/23/01	% RECOV 101 01/22/01 01/24/01	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB-1</u>	<u>PB-2</u>	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 01/23/01 01/23/01	0.020 U 01/23/01 01/23/01	μg/L

U = Compound was analyzed for but not detected to the level shown. D2 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 5 OF 37

TOTAL METALS METHO	<u>D PB-1</u>	<u>PB-2</u>	<u>Units</u>
Lead 200.7 Date Analyzed	0.0050 U 01/23/01	0.0050 U 01/23/01	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	<u>PB-1</u>	<u>PB-2</u>	<u>Units</u>
Hydrocarbons (C8-C40)	4.2	4.7	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed	% RECOV 104 01/23/01 01/25/01	<u>% RECOV</u> 118 01/23/01 01/25/01	<u>LIMITS</u> 38-133

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 6 OF 37

EPA METHOD 601 -			
VOLATILE HALOCARBONS	<u>PB-3</u>	<u>PB-4</u>	<u>Units</u>
	PB-3 1000 U D3	PB-4 500 U D4 1000 U D4 500 U D4	Units \(\mu\)
1,1,2,2-letrachioroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1000 U D3 1000 U D3 1000 U D3	500 U D4 500 U D4 500 U D4	μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 105 01/24/01	% RECOV 98 01/24/01	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

D3 = Analyte value determined from a 1:1000 dilution.

D4 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 7 OF 37

EPA METHOD 602 - VOLATILE AROMATICS	<u>PB-3</u>	<u>PB-4</u>	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2000 U D3 1000 U D3	1000 U D4 500 U D4	μg/L μg/L μg/L μg/L μg/L μg/L μβ/L μβ/L
<u>Surrogate:</u> Bromofluorobenzene Date Analyzed	<u>% RECOV</u> 110 01/24/01	% RECOV 106 01/24/01	<u>LIMITS</u> 52-147

U = Compound was analyzed for but not detected to the level shown. D3 = Analyte value determined from a 1:1000 dilution.

D4 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 8 OF 37

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	<u>PB-3</u>	<u>PB-4</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	1.1 1.0 U 740 D5 870 D5 0.50 U 0.10 U 1.0 U 0.20 U 17 16 3.4 2.5 0.98 0.67 0.10 U 0.10 U 0.10 U	220 D5 1.0 U 580 D5 640 D5 0.50 U 0.10 U 1.0 U 0.20 U 2.4 8.3 0.10 U	µg/L µg/L µg/L µgg/L µµgg/L µg/L µ
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 135 01/22/01 01/24/01	% RECOV 106 01/22/01 01/24/01	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB-3</u>	<u>PB-4</u>	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 01/23/01 01/23/01	0.020 U 01/23/01 01/23/01	μg/L

U = Compound was analyzed for but not detected to the level shown. D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 9 OF 37

TOTAL METALS	METHOD	<u>PB-3</u>	<u>PB-4</u>	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 01/23/01	0.0050 U 01/23/01	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL		<u>PB-3</u>	<u>PB-4</u>	<u>Units</u>
Hydrocarbons (C8-	C40)	94 D2	66 D2	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV * 01/23/01 01/25/01	% RECOV * 01/23/01 01/26/01	<u>LIMITS</u> 38-133

^{* =} Surrogate recovery unavailable due to sample dilution.

U = Compound was analyzed for but not detected to the level shown.
D2 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 10 OF 37

EPA METHOD 601 -			
VOLATILE HALOCARBONS	<u>PB-5</u>	<u>PB-6</u>	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethene 1,1-Trichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	10 U D2	5.0 U D1 10 U D1 5.0 U D1	μμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμ
Surrogate: Bromofluorobenzene	<u>% RECOV</u> 79 01/27/01	<u>% RECOV</u> 80 01/27/01	<u>LIMITS</u> 37-161
Date Analyzed	01/2//01	01/2//01	

U = Compound was analyzed for but not detected to the level shown. D1 = Analyte value determined from a 1:5 dilution.

D2 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 11 OF 37

EPA METHOD 602 - VOLATILE AROMATICS	<u>PB-5</u>	<u>PB-6</u>	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	20 U D2 10 U D2	10 U D1 5.0 U D1	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	<u>% RECOV</u> 116 01/27/01	<u>% RECOV</u> 115 01/27/01	<u>LIMITS</u> 52-147

U = Compound was analyzed for but not detected to the level shown. D1 = Analyte value determined from a 1:5 dilution.

D2 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 12 OF 37

EPA METHOD 8310 - PAH BY HPLC	<u>PB-5</u>	<u>PB-6</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	4.0 1.0 U 130 D2 17 0.50 U 0.10 U 1.0 U 0.20 U 0.29 0.58 0.10 U	5.8 1.0 U 45 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	μα/L μα/L μασααααααααααααααααααααααααααααααααααα
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 99 01/22/01 01/24/01	% RECOV 91 01/22/01 01/24/01	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB-5</u>	<u>PB-6</u>	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 01/23/01 01/23/01	0.020 U 01/23/01 01/23/01	μg/L

U = Compound was analyzed for but not detected to the level shown. D2 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 13 OF 37

MOMAT MEMATO	METHOD	<u>PB-5</u>	<u>PB-6</u>	<u>Units</u>
TOTAL METALS	MEIROD	<u>FB-3</u>	<u>FD-0</u>	<u>OHI CD</u>
Lead Date Analyzed	200.7	0.0050 U 01/23/01	0.0050 U 01/23/01	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL		<u>PB-5</u>	<u>PB-6</u>	<u>Units</u>
Hydrocarbons (C8-	C40)	5.7	1.8	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV 48 01/23/01 01/25/01	% RECOV 106 01/23/01 01/25/01	<u>LIMITS</u> 38-133

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 14 OF 37

EPA METHOD 601 - VOLATILE HALOCARBONS	<u>PB-7</u>	<u>PB-8</u>	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	500 U D4	1.0 U	μα/Ι μα/Ι μα/Ι μασαασασασασασασασασασασασασασασασασασα
<u>Surrogate:</u> Bromofluorobenzene Date Analyzed	<u>% RECOV</u> 106 01/25/01	<u>% RECOV</u> 107 01/25/01	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 15 OF 37

EPA METHOD 602 -	PB-7	PB-8	<u>Units</u>
VOLATILE AROMATICS	<u>PB- /</u>	<u>FD-0</u>	<u> </u>
Methyl tert-butyl ether Benzene	1000 U D4 500 U D4	2.0 U 1.0 U	μg/L μg/L
Toluene	500 U D4	1.0 U	μ g/L
Chlorobenzene	500 U D4	1.0 U	μ g/L
Ethylbenzene	500 U D4	1.0 U	$\mu { t g}/{ t L}$
m-Xylene & p-Xylene	500 U D4	1.0 U	$\mu { t g}/{ t L}$
o-Xylene	500 U D4	1.0 U	μ g/L
1,3-Dichlorobenzene	500 U D4	1.0 U	μ g/L
1,4-Dichlorobenzene	500 U D4	1.0 U	μ g/L
1,2-Dichlorobenzene	500 U D4	1.0 U	μ g/L
Surrogate:	% RECOV_	% RECOV	<u>LIMITS</u>
Bromofluorobenzene	111	111	52-147
Date Analyzed	01/25/01	01/25/01	

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 16 OF 37

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	<u>PB-7</u>	<u>PB-8</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	96 D6 1.0 U 390 D6 530 D6 0.50 U 0.10 U 1.0 U 1.0 U 0.20 U 20 5.8 0.62 0.55 0.26 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.19 0.14 0.10 U	μg/L μg/L μg/L μασ/L μα/L μα/L μα/L μα/L μα/L μα/L μα/L μα
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 94 01/22/01 01/24/01	% RECOV 84 01/22/01 01/24/01	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB-7</u>	<u>PB-8</u>	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 01/23/01 01/23/01	0.020 U 01/23/01 01/23/01	μg/L

 $[\]mathbb U$ = Compound was analyzed for but not detected to the level shown. D6 = Analyte value determined from a 1:20 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 17 OF 37

TOTAL METALS	METHOD	<u>PB-7</u>	<u>PB-8</u>	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 01/23/01	0.0050 U 01/23/01	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL O	RG.	<u>PB-7</u> 130 D5	PB-8 0.20 U	<u>Units</u> mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV * 01/23/01 01/26/01	% RECOV 107 01/23/01 01/25/01	<u>LIMITS</u> 38-133

^{* =} Surrogate recovery unavailable due to sample dilution.

U = Compound was analyzed for but not detected to the level shown.

D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 18 OF 37

EPA METHOD 601 - VOLATILE HALOCARBONS	<u>PB-9</u>	<u>TB-1</u>	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethane chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethane Trichloroethane thloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	500 U D4 1000 U D4 2500 U D4 500 U D4	500 U D4 1000 U D4 500 U D4	μ
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 103 01/25/01	% RECOV 100 01/25/01	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 19 OF 37

EPA METHOD 602 - VOLATILE AROMATICS	PB-9	<u>TB-1</u>	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1000 U D4 500 U D4	1000 U D4 500 U D4	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 108 01/25/01	% RECOV 108 01/25/01	<u>LIMITS</u> 52-147

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 20 OF 37

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	<u>PB-9</u>	<u>TB-1</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	3.3 1.0 U 780 D5 1000 D5 0.50 U 0.10 U 1.0 U 0.20 U 16 20 3.0 2.5 0.93 0.71 0.67 0.26 0.53 0.78	0.50 U 1.0 U 860 D5 1300 D5 0.50 U 0.10 U 1.0 U 0.20 U 12 7.2 0.43 0.10 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 140 01/22/01 01/24/01	<u>% RECOV</u> 96 01/22/01 01/24/01	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB-9</u>	<u>TB-1</u>	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 01/23/01 01/23/01	0.020 U 01/23/01 01/23/01	μg/L

U = Compound was analyzed for but not detected to the level shown. D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 21 OF 37

TOTAL METALS	METHOD	<u>PB-9</u>	<u>TB-1</u>	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 01/23/01	0.0060 I 01/23/01	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL Hydrocarbons (C8-	ORG.	<u>PB-9</u> 170 D5	<u>TB-1</u> 190 D5	<u>Units</u> mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV * 01/23/01 01/26/01	% RECOV * 01/23/01 01/26/01	<u>LIMITS</u> 38-133

^{* =} Surrogate recovery unavailable due to sample dilution.

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL)

and the Practical Quantitation Level (PQL).

D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 22 OF 37

RESULTS OF ANALYSIS

EPA METHOD 601 - VOLATILE HALOCARBONS	<u>TB-2</u>	<u>TB-3</u>	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethane Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U	500 U D4	µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 88 01/30/01	% RECOV 108 01/25/01	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 23 OF 37

EPA METHOD 602 - VOLATILE AROMATICS	<u>TB-2</u>	<u>TB-3</u>	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	1000 U D4 500 U D4	μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 110 01/30/01	% RECOV 108 01/25/01	<u>LIMITS</u> 52-147

U = Compound was analyzed for but not detected to the level shown. D4 = Analyte value determined from a 1:500 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 24 OF 37

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	<u>TB-2</u>	<u>TB-3</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene	0.65 1.0 U 5.0 6.9 0.50 U 0.10 U 1.0 U 0.20 U 0.30 0.27 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	0.50 U 1.0 U 820 D5 1200 D5 0.50 U 0.10 U 1.0 U 0.20 U 5.9 6.4 0.43 0.10 U	μα/L μα/L μα/L μα/L μα/L μα/L μα/L μα/L
Indeno(1,2,3-cd)pyrene Surrogate: p-terphenyl Date Prepared Date Analyzed	0.10 U <u>% RECOV</u> 100 01/22/01 01/24/01	% RECOV 86 01/22/01 01/24/01	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>TB-2</u>	<u>TB-3</u>	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 01/23/01 01/23/01	0.020 U 01/23/01 01/23/01	μg/L

U = Compound was analyzed for but not detected to the level shown. D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 25 OF 37

TOTAL METALS	METHOD	<u>TB-2</u>	<u>TB-3</u>	<u>Units</u>
Lead Date Analyzed	200.7	0.010 01/23/01	0.0050 U 01/23/01	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL Hydrocarbons (C8-	ORG.	TB-2 0.20 U	<u>TB-3</u> 160 D5	<u>Units</u> mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV 111 01/23/01 01/25/01	% RECOV 0 U 01/23/01 01/26/01	<u>LIMITS</u> 38-133

U = Compound was analyzed for but not detected to the level shown. D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 26 OF 37

EPA METHOD 601 - VOLATILE HALOCARBONS	<u>TB-4</u>	<u>TB-5</u>	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethane Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	5.0 U D1 10 U D1 5.0 U D1	10 U D2	μαμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμ
Surrogate: Bromofluorobenzene Date Analyzed	<u>% RECOV</u> 108 01/30/01	<u>% RECOV</u> 94 01/30/01	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:5 dilution.

D2 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 27 OF 37

EPA METHOD 602 -			
VOLATILE AROMATICS	<u>TB-4</u>	<u>TB-5</u>	<u>Units</u>
Methyl tert-butyl ether	10 U D1	20 U D2	μg/L
Benzene	5.0 U D1	10 U D2	$\mu { t g}/{ t L}$
Toluene	5.0 U D1	10 U D2	μg/L
Chlorobenzene	5.0 U D1	10 U D2	μ g/L
Ethylbenzene	5.0 U D1	10 U D2	$\mu { t g}/{ t L}$
m-Xylene & p-Xylene	5.0 U D1	10 U D2	μg/L
o-Xylene	5.0 U D1	10 U D2	μg/L
1,3-Dichlorobenzene	5.0 U D1	10 U D2	$\mu g/L$
1,4-Dichlorobenzene	5.0 U D1	10 U D2	$\mu g/L$
1,2-Dichlorobenzene	5.0 U D1	10 U D2	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	122	113	52-147
Date Analyzed	01/30/01	01/30/01	

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:5 dilution.

D2 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 28 OF 37

EPA METHOD 8310 - PAH BY HPLC	<u>TB-4</u>	<u>TB-5</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene	40 1.0 U 190 D2 240 D2 0.50 U 0.10 U 1.0 U 0.20 U 3.8 2.2 0.16 0.20 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	50 U D7 100 U D7 4800 D7 7200 D3 50 U D7 10 U D7 10 U D7 20 U D7 280 D7 89 D7 10 U D7	μα/L μα/L μα/L μα/L μα/L μα/L μα/L μα/L
Indeno(1,2,3-cd)pyrene Surrogate: p-terphenyl Date Prepared Date Analyzed	0.10 U **RECOV 92 01/22/01 01/24/01	10 U D7 **RECOV 0 U 01/22/01 01/24/01	μg/L <u>LIMITS</u> 43-148

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:10 dilution.

D3 = Analyte value determined from a 1:1000 dilution.
D7 = Analyte value determined from a 1:100 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001 REFERENCE: 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 29 OF 37

EPA METHOD 504 - ETHYLENE DIBROMIDE	<u> </u>	<u>TB-4</u>	<u>TB-5</u>	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	2	0.020 U 01/23/01 01/23/01	0.020 U 01/23/01 01/24/01	μg/L
TOTAL METALS	METHOD	<u>TB-4</u>	<u>TB-5</u>	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 01/23/01	0.0050 U 01/24/01	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL		<u>TB-4</u>	<u>TB-5</u>	<u>Units</u>
Hydrocarbons (C8-0	240)	9.9	430 D5	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV 94 01/23/01 01/25/01	% RECOV * 01/23/01 01/26/01	<u>LIMITS</u> 38-133

^{* =} Surrogate recvoery unavailable due to sample dilution.

U = Compound was analyzed for but not detected to the level shown.

D5 = Analyte value determined from a 1:50 dilution.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 30 OF 37

EPA METHOD 601 - VOLATILE HALOCARBONS	LAB BLANK	LAB BLANK	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene t,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene	1.0 U	1.0 U	ON
1,2-Dichlorobenzene <u>Surrogate:</u> Bromofluorobenzene Date Analyzed	1.0 U <u>% RECOV</u> 103 01/24/01	1.0 U <u>% RECOV</u> 77 01/27/01	μg/L <u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 31 OF 37

EPA METHOD 602 - VOLATILE AROMATICS	LAB BLANK	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 112 01/24/01	% RECOV 101 01/27/01	<u>LIMITS</u> 52-147

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 32 OF 37

EPA METHOD 8310 - PAH BY HPLC	LAB BLANK	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	μα/L μα/L μασααααααααααααααααααααααααααααααααααα
Surrogate: p-terphenyl Date Prepared Date Analyzed	<pre>% RECOV 85 01/22/01 01/23/01</pre>	<u>LIMITS</u> 43-148
EPA METHOD 504 -		**

ETHYLENE DIBROMIDE	LAB BLANK	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 01/23/01 01/23/01	μg/L

 $extsf{U}$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 33 OF 37

TOTAL METALS	<u>METHOD</u>	LAB BLANK	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 01/23/01	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL Hydrocarbons (C8-	ORG.	<u>LAB</u> <u>BLANK</u> 0.20 U	<u>Units</u> mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed	C107	% RECOV 84 01/23/01 01/25/01	<u>LIMITS</u> 38-133

extstyle U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 34 OF 37

EPA METHOD 601 - VOLATILE HALOCARBONS	LAB BLANK	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U	μg/L μg/L μg/L μg/L μα//μα// μα//μα// μα//μα// μα//μα// μα//μα//
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 104 01/30/01	<u>LIMITS</u> 37-161

 $extsf{U}$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 35 OF 37

EPA METHOD 602 - VOLATILE AROMATICS	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 98 01/30/01	LIMITS 52-147

 $extsf{U}$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 36 OF 37

QUALITY CONTROL DATA

<u>Parameter</u>	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD <u>MS/MSD</u>	ACCEPT LIMITS
EPA <u>Method</u> 601 Methylene Chloride	98/120/132	45-161	20	29
Chloroform	118/112/117	64-154	5	16
Carbon Tetrachloride	108/104/126	71-165	4	21
Trichloroethene	90/ 92/ 97	69-158	2	24
Tetrachloroethene	102/ 93/121	63-166	9	21
Chlorobenzene	88/ 94/103	67-147	6	19
EPA Method 602				1.5
Benzene	103/100/101	60-138	3	17
Toluene	106/103/ 99	57-138	3 3	16 17
Ethylbenzene	112/109/106	49-144	3 7	17
o-Xylene	112/104/128	50-151	,	1,
EPA Method 8310		59-111	10	12
Naphthalene	68/ 75/ 64	59-111	#17	13
Acenaphthene	74/ 88/ 74 78/ 80/ 83	78-134	2	15
Benzo(a) pyrene	88/ 95/ 81	62-115	8	30
Benzo(g,h,i)perylene	66/ 95/ 61	02 119	•	

Environmental Conservation Laboratories Comprehensive QA Plan #910190

= One or more of the associated value failed to meet laboratory established limits for precision.

< = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

REPORT # : JAX15380

DATE REPORTED: January 31, 2001

REFERENCE : 2624

PROJECT NAME : MAYPORT AST CLOSURE

PAGE 37 OF 37

QUALITY CONTROL DATA

	% RECOVERY	ACCEPT	% RPD	ACCEPT
<u>Parameter</u>	MS/MSD/LCS	<u>LIMITS</u>	MS/MSD	LIMITS
EPA Method 504				
Ethylene Dibromide	96/ 96/104	57-130	<1	18
Dibromochloropropane	104/104/ 80	60-130	<1	20
TOTAL METALS				
Lead, 200.7	100/ 99/ 99	68-126	1	19
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	93/ 87/ 72	51-163	7	27

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

LIMITED CLOSURE SUMMARY REPORT

Mayport Naval Station Fuel Depot Tank # 203 Mayport Naval Station, Duval County, Florida Facility ID # 8626008

Prepared for:

Environmental Recovery, Inc. 251 Levy Road Atlantic Beach, Florida 32233

Prepared by:

Environmental Science Associates, Inc. 35 Jefferson Avenue Ponte Vedra, Florida 32802 CompQAP #970173

August 2000

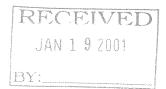


TABLE OF CONTENTS

PAGE
Limited Closure Summary Report Form
Summary of Field Activities
Figure 1. Site Location Map
Figure 2. Site Map Indicating Soil and Groundwater Sampling Locations 6
Table 1. Summary of OVA Soil Screening Results
Table 2. Summary of Confirmatory Soil Analysis
Table 3. Summary of Groundwater Analysis - Temporary Monitor Wells
Photodocumentation
ATTACHMENT A - Laboratory Reports
ATTACHMENT B - Well Sampling Field Logs



Department of Environmental Protection

DEP Form 62-761,900(8)
Form Title: Limited Closure
Summary Report:
Effective Date: 7/13/98

Limited Closure Summary Report

This form is required for facilities that have sites with documented contamination requiring a site assessment in accordance with Chapter 62-770, F.A.C. This includes those facilities that are eligible for the Early Detection Incentive Program (EDI), the Florida Petroleum Liability and Restoration Insurance Program (FPLRIP), and the Petroleum Cleanup Participation Program (PCPP), pursuant to Sections 376.3071 and 376.3072, F.S. Documentation of procedures followed, and results obtained during closure shall be reported in this form, along with any attachments. This form shall be submitted to the County within 60 days of completion of the closure in accordance with Section A of the "Storage Tank System Closure Assessment Requirements."

Complete All Applicable Blanks. Please Print or Type

General Information					
Date $\psi/st/sv$ FDEP	Facility ID Number 2626008		County De	val	
Facility Name May Port NA	- Val Station Table # 203	Facility Te	lephone #: ()	
Facility Address: MAY pack NA	und Station, May port fl	or.da			
Owner or Operator Name: U, S	3. Navy	Owner/Ope	erator phone	¥: ()	
Mailing Address:	<i>t</i>				
Storage Tank System Clos	ure Information				
1. Were the storage tanks(s): (Ch	eck one or both)		<i>y</i>		
Aboveground	• Unde	rground 🗸			
2. General System Information		377 1 01		1	~
Types of Products Stored: √841€	ULAYL IJIESE Number of	Tanks Close	ed_ <i>0,V</i> =	Age(s) of Tanks	33 yrs
3. Was the Limited Closure Summ	nary Report Performed as a Result of				
Tank Systems Removal?	Spill Containment Installation?			Non-Regulated Sul	ostance?
Tank Systems Closed in Place?	Dispenser Liners Installation?		·····	rier Installation?	
• Piping Sump Installation? • Secondary Containment Installation? • Other? (please explain)					
4. Please Check Yes or No to the	following:				
	contamination discovered on site? It	yes, was		• Yes	• No
	m submitted to the County?			• Yes	• No
	med in accordance with Rule 62-761.	820, F.A.C.?	······································	• Yes	• No
b. Is the depth to groundwater les			· · · · · · · · · · · · · · · · · · ·	• Yes	• No
c. Are there monitoring wells on	site? If yes, were they		**************************************	• Yes	• No
Groundwater monitoring			**************************************	• Yes V	• No
2. Vapor monitoring wells	?			• Yes	• No 🗸
3. Used for closure assessr	nent sampling?			• Yes	• No
4. Properly closed?				• Yes	• No /
5. Retained for site assessm				• Yes	• No
d. If tanks were replaced, were co	ontaminated soils returned to the tank	excavation?		• Yes	• No /
Signature of owner or operator	Signature of person perfor Limited Closure Assess	1-	Limite	of person performed Closure Assess	- /
(date)	(date) 6 0 c	Affilia	ationESA_	120-	

LIMITED CLOSURE SUMMARY REPORT

Mayport Naval Station Fuel Depot Tank # 203 Mayport Naval Station, Duval County, Florida Facility ID # 8626008

Summary of Field Activities

Environmental Science Associates, Inc. (ESA) was contracted by Environmental Recovery, Inc. (ERI) of Atlantic Beach, Florida (PSSSC #PC-C050751) to perform limited closure assessment services following the removal of a diesel fuel Underground Storage Tank (UST) from the Fuel Depot facility (Facility ID #8626008) located on Mayport Naval Station in Duval County, Florida (refer to Figure 1., Site Location Map). The purpose of the limited closure summary was to evaluate current subsurface site conditions in the vicinity of the tank. Field activities for the limited closure assessment were conducted on May 30, 31 and June 1, 2000.

Tank 203 is identified on the FDEP Storage Tank registration information as a 1,555,000-gallon bulk vehicular diesel fuel UST, with a reported installation date of 7/1964. The tank had been previously dismantled and removed from the site, with the circular concrete tank pad, measuring 100 ft in diameter, remaining in place. The limited closure assessment activities were conducted following the removal of the tank, and was performed in accordance with the requirements of Chapter 62-761 F.A.C. and the Florida Department of Environmental Protection (FDEP) guidance document "Pollutant Storage Tank Closure Assessment Requirements" (April 1998) for sites with previously documented contamination. The methods and procedures used during the closure assessment were conducted in accordance with the FDEP "Quality Assurance Standard Operating Procedures for Petroleum Storage System Closure Assessments".

As part of the limited closure assessment, total of thirteen (13) confirmatory soil and groundwater were collected from soil borings conducted at the base of the former tank location. A total of eight (8) soil borings (soil boring locations # SB-P1 through SB-P8, with the 'P' designator used to identify sampling locations selected at the perimeter of the tank pad) were conducted at equidistant locations around the perimeter of the concrete tank pad; a total of four (4) additional soil borings (SB-9 through SB-12) were conducted at equidistant locations at the midpoint between the center of the concrete tank pad and the center point of the tank pad; and the remaining soil boring (SB-13) was conducted at the center of the tank pad. Site preparation activities included the use of a concrete core drill to remove a 5-inch diameter core from the 6-inch thick concrete tank pad at those sampling locations selected directly beneath the former tank location. Soil boring locations were selected around the perimeter of the tank pad using a compass heading of North for soil boring location SB-P1, and continuing at uniform intervals in a clockwise direction around the perimeter of the tank pad for soil boring locations #SB-P2 through SB-P8.

The soil borings were conducted using a stainless steel hand auger. Each of the borings were advanced to the depth of the water table, which was encountered at a depth of approximately 4 to 5 ft below surface grade in each of the soil borings. Soil samples were collected from each soil boring at the ground surface and at one foot intervals until the water table was encountered. These soil samples were screened for the presence of volatile organic hydrocarbon vapors by organic vapor headspace analysis field screening procedures using a Foxboro 128 Organic Vapor Analyzer/Flame Ionization Detector (OVA/FID). In this procedure, a clean 16-ounce, wide mouth glass jar is half-filled with the soil to be tested. The jar is then sealed with aluminum foil and allowed to equilibrate at ambient temperatures for a period of approximately five minutes. The probe of the OVA/FID is then inserted through the foil seal, and the concentration of volatile organic compounds in the headspace of the jar is read in parts per million (ppm). The instrument was calibrated in the field prior to sample collection using a standard of 95 parts per million (ppm) methane, and the samples were analyzed both with and without carbon filtration in order to detect and correct for the presence of naturally occurring organic vapors (i.e., methane). The results of the field screening were below 1 part per million total (corrected) volatile petroleum hydrocarbon vapors in each of the soil sampling locations.

A total of thirteen (13) confirmatory soil samples were collected, with one (1) soil sample collected from each of the thirteen soil borings conducted in proximity of the former tank location. Based on the results of the OVA soil screening, which indicated a lack of indications of volatile petroleum hydrocarbon vapors in the soil samples, as well as on a lack of apparent visual indications of the presence of contamination, each of the confirmatory soil samples were collected from a depth of approximately 1 foot above the water table, which was encountered at a depth of approximately 4.0 to 5.0 feet below the concrete base of the of the former tank.

Each of the confirmatory soil samples were collected using a stainless steel hand auger and Encore® brand samplers. Sampling equipment was decontaminated between sampling locations to prevent the possibility of cross-contamination. The samples were placed into pre-cleaned, laboratory supplied sample containers, appropriately labeled, sealed in zip-lock type bags and placed on wet ice for transport, and hand-delivered to a FDEP-approved laboratory (ENCO Laboratories, Jacksonville) for analysis by the following methods:

EPA Method 8021 EPA Method 8310 Fla-PRO Volatile Organic Compounds Polynuclear Aromatic Hydrocarbons Total Petroleum Hydrocarbons

The results of the laboratory analysis of the soil samples detected the presence of petroleum hydrocarbon compounds in seven (7) of the thirteen (13) confirmatory soil samples collected, including sample #'s CS-P4, CS-P6, CS-P7, CS-P8, CS-11, CS-12, and CS-13, with the highest concentrations detected in CS-P4. The soil contaminant concentrations detected in each of the soil samples were below the Florida Department of Environmental Protection (FDEP) Soil Cleanup Target Levels (SCTL) as specified in Chapter 62-775, F.A.C., Table II, in all samples, with the exception of soil sample #CS-P4. Concentrations of Polynuclear Aromatic Hydrocarbons detected

in confirmatory soil sample #CS-P4 exhibited concentrations of Benzo(a)anthracene (2.2mg/Kg) in excess of the Direct Exposure, Residential Soil Cleanup Target Level of 1.5mg/Kg, and Benzo(a)pyrene (1.0mg/Kg) in excess of the Direct Exposure, Residential Soil Cleanup Target Level of 0.1mg/Kg, as well as the Direct Exposure, Industrial Soil Cleanup Target Level of 0.5mg/Kg. All concentrations detected were below the applicable Leachability exposure guidelines specified by 62-775. The results of the soil analysis are summarized in Table 2, and soil sampling locations are illustrated in Figure 3. Copies of the laboratory reports of the confirmatory soil analysis are provided in Attachment A.

Following confirmatory soil sample collection, each of the thirteen (13) soil borings were advanced below the top of the water table and temporary monitor wells were installed and sampled. Each of the temporary wells (TMW-1 through TMW-13) were constructed of 2-inch PVC with 5 ft of 0.01.-inch slotted well screen, and was installed such that the well screen intercepted the top of the water table, which was encountered at a depth of approximately 4 to 5 ft below the concrete base of the tank. The annular space around the well screen was filled with clean 6/20 grade sand pack. Prior to sample collection, each temporary well was purged a total of five (5) standing volumes using a portable peristaltic pump utilizing the quiescent purging technique. Groundwater samples were collected from each temporary well using a Teflon bailer. Sample containers, which had been provided by the designated laboratory, were appropriately labeled, preserved, sealed in zip-lock type bags, placed on wet ice, and hand-delivered, under standard chain of custody procedures, to an FDEP-approved environmental laboratory (ENCO Laboratories, Jacksonville) for analysis for those parameters specified in the Kerosene Analytical Group, as follows:

EPA Method 8021 EPA Method 8310 Fla-PRO EPA Method 504 EPA Method 200.7 Volatile Organic Compounds Polynuclear Aromatic Hydrocarbons Total Petroleum Hydrocarbons Ethylene dibromide (EDB) Total Lead

The results of the laboratory analysis of the groundwater samples collected from the temporary monitor wells indicated concentrations of petroleum product chemicals of concern, including Polynuclear Aromatic Hydrocarbons, Lead, and/or Volatile Organic Compounds in five (5) of the thirteen (13) wells sampled; however, the concentrations of all contaminants of concern were detected at concentrations below the applicable groundwater guidance concentration as specified in Chapter 62-775, Table I (refer to Table 3). Polynuclear Aromatic Hydrocarbons were detected in temporary monitor wells #TMW-P1, TMW-P2, TMW-P3, TMW-P4, and TMW P5; Lead was detected in temporary monitor wells # TMW-I ($10\mu g/L$), TMW-2 ($11\mu g/L$), and in TMW-P3 ($8\mu g/L$), and Tetrachloroethene was detected in Temporary monitor well # TMW-P3 (only), at a concentration of 2.0 $\mu g/L$. The results of the laboratory analysis of the groundwater samples collected from the temporary monitor wells are summarized in Table 3, and the temporary well locations are illustrated in Figure 2. Copies of the laboratory reports of the groundwater analysis are provided in Attachment A, and copies of the well sampling field logs are provided in Attachment B.

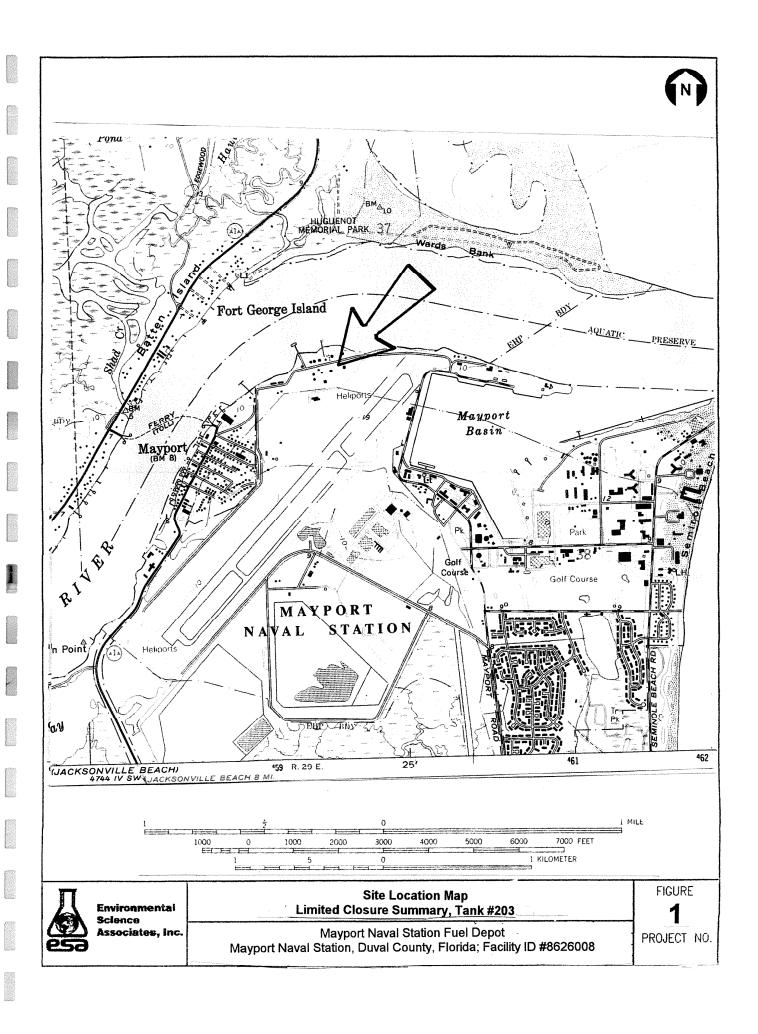
Included in this limited closure summary report are copies of the laboratory reports of the soil and groundwater analysis, which are provided as Attachment A. Also included in the report is a site location map, a site sketch indicating soil and groundwater sampling locations relative to the former tank locations, as well as the results of the laboratory analysis in table form.

Respectfully Submitted,

Environmental Science Associates, Inc.

Richard Moriarty

Environmental Scientist



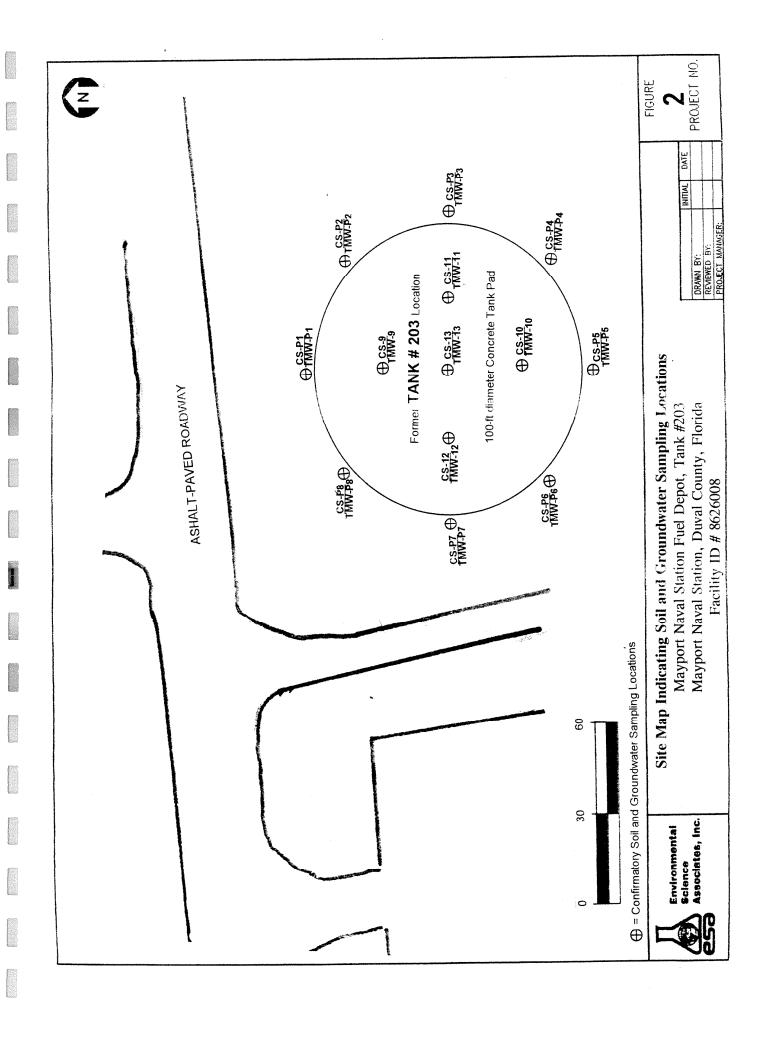


Table 1. SUMMARY of OVA SOIL SCREENING RESULTS

Limited Closure Summary

Tank #203

Mayport Naval Station Mayport, Duval County, Florida Facility ID # 8626008

	ORGANIC VAPOR CONCENTRATION		•		
Sample	Sample Depth		parts per mill		D 1.
I.D.	(below grade)	Unfiltered	Filtered	Total	Remarks
SB-1:					North side of concrete tank pad, perimeter
	Surficial	0	0	0	, , ,
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	0	
	3 feet below grade	0	0	0	
	4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
SB-2:					Perimeter of concrete tank pad, NE.
	Surficial	0	0	0	F, 7
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	0	
	3 feet below grade	0	0	0	
	4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
SB-3:					Perimeter of concrete tank pad, East.
	Surficial	0	0	0	F ,
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	A Rigo	
	3 feet below grade	0	0	Ũ.	
	4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
SB-4:					Perimeter of concrete tank pad, SE.
J 11	Surficial	0	0	0	Fac, 22
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	0	
	3 feet below grade	0	0	0	
	4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
SB-5:					Perimeter of concrete tank pad, South.
	Surficial	0	0	0	pila, go ann
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	0	
	3 feet below grade	0	0	0	
	4 feet below grade	Ö	0	0	- water table @ 4.5 - 5.0 ft BG
SB-6:					Perimeter of concrete tank pad, SW.
"	Surficial	0	0	0	The state of the s
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	0	
	3 feet below grade	0	0	0	
	4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG

Table 1., OVA Soil Screening Results, continued

			VAPOR CON		<u>ION</u>
Sample	Sample Depth		(in parts per m		
I.D.	(below grade)	Unfiltered	Filtered	Total	Remarks
CD 7.					Perimeter of concrete tank pad, West
SB-7:	Surficial	0	0	0	refiniteer of concrete tank pau, west
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	0	
		0	0	0	
	3 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
	4 feet below grade	U	U	U	- water table @ 4.3 - 3.0 it BC
SB-8:					Perimeter of concrete tank pad, NW.
	Surficial	0	0	0	
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	0	
	3 feet below grade	0	0	0	
	4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
SB-9:					Midpoint, north
3.0-7.	Surficial	0	0	0	
	1 foot below grade	0	0	0	
	2 feet below grade	0	Ö	0	
	3 feet below grade	0	0	0	
	4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
	4 feet below grade	Ů	•	· ·	Water table ig the Old K 55
SB-10:		_			Midpoint, south.
	Surficial	0	0	0	
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	0	
	3 feet below grade	0	0	0	
	4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
SB-11:					Midpoint, east.
	Surficial	0	0	0	•
	1 foot below grade	0	O	0	
	2 feet below grade	0	0	0	
	3 feet below grade	0	0	0	
	4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
CD 10					Midmoint wast
SB-12:	C	0	0	0	Midpoint, west.
	Surficial	0	0	0	
	1 foot below grade	0	0	0	
	2 feet below grade	0	0	0	
	3 feet below grade 4 feet below grade	0	0	0	- water table @ 4.5 - 5.0 ft BG
	4 feet below grade	V	U	O	- water table @ 4.5 - 5.0 ft be
SB-13:					Center of concrete tank pad.
	Surficial	0	0	0	
	I foot below grade	0	0	0	
	2 feet below grade	0	0	0	
	3 feet below grade	0	0	0	
	4 feet below grade	0	0	0	 water table @ 4.5 - 5.0 ft BG

Field Meter: Foxboro 128 OVA/FID

Field Calibration Check: 5/30/00;10:50/ 5/31/00;08:50/6/1/00;09:15 Description of Procedures: OVA Soil Headspace Analysis

Table 2.
Summary of Laboratory Analysis
Confirmatory Soil Sampling
Mayport Naval Station Fuel Depot, Tank # 203
Mayport Naval Station, Duval County, Florida

	Confir	matory Soil Sa	ample ID	FDI	FDEP Soil Cleanup		
Parameter	CS-P1	CS-P2	CS-P3		Target Le		
				Residend	ai industria	l Leachabilit	
Volatile Organic Compounds:							
(EPA Method 8021)							
Benzene	BDL	BDL	BDL	1.1	0.6	0.007	
Toluene	BDL	BDL	BDL	380	2600	0.5	
Ethylbenzene	BDL	BDL	BDL	1100	8400	0.6	
Xylenes	BDL	BDL	BDL	5900	40000	0.2	
MTBE	BDL	BDL	BDL	3200	22000	0.5	
All Other 8021 Compounds	BDL	BDL	BDL		N/A		
Polynuclear Aromatic Hydrocarbons:							
(EPA Method 8310)							
Naphthalene	BDL	BDL	BDL	40	270	1.7	
Flourene	BDL	BDL	BDL	2200	28000	160	
Phenanthrene	BDL	BDL	BDL	2000	30000	250	
Flouranthrene	BDL	BDL	BDL	2900	48000	1200	
Pyrene	BDL	BDL	BDL	2200	37000	880	
Benzo(a)anthracene	BDL	BDL	BDL	1.5	5	3.2	
Benzo(b)Flouranthene	BDL	BDL	BDL	1.4	4.8	10	
Benzo(a)pyrene	BDL	BDL	BDL	0.1	0.5	8	
Benzo(g,h,i,)perylene	BDL	BDL	BDL	2300	41000	32000	
Chrysene	BDL	BDL	BDL	140	450	77	
Dibenzo(a,h)anthracene	BDL	BDL	BDL	0.1	0.5	30	
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	1.5	5.3	28	
All other 8310 Compounds	BDL	BDL	BDL		N/A		
FLA PRO:	BDL	BDL	BDL	340	2500	340	

^{*}Soil Cleanup Target Levels as per 62-775 F.A.C., Table II, Direct Exposure, Industrial Use Assumption/Leachability

Table 2, continued.

Summary of Laboratory Analysis
Confirmatory Soil Sampling
Mayport Naval Station Fuel Depot, Tank # 203
Mayport Naval Station, Duval County, Florida

	Confir	matory Soil Sa	ample ID	FDI	FDEP Soil Cleanup		
Parameter	CS-P4	CS-P5	CS-P6	Target Levels*			
				Residenti	al Industria	l Leachabilit	
Volatile Organic Compounds:							
(EPA Method 8021)							
Benzene	BDL	BDL	BDL	1.1	0.6	0.007	
Toluene	BDL	BDL	BDL	380	2600	0.5	
Ethylbenzene	BDL	BDL	BDL	1100	8400	0.6	
Xylenes	BDL	BDL	BDL	5900	40000	0.2	
MTBE	BDL	BDL	BDL	3200	22000	0.5	
All Other 8021 Compounds	BDL	BDL	BDL		N/A		
Polynuclear Aromatic Hydrocarbons:							
(EPA Method 8310)							
Naphthalene	0.740	BDL	BDL	40	270	1.7	
Flourene	0.290	BDL	BDL	2200	28000	160	
Phenanthrene	3.9	BDL	BDL	2000	30000	250	
Flouranthrene	9.9	BDL	0.052	2900	48000	1200	
Pyrene	6.9	BDL	0.045	2200	37000	880	
Benzo(a)anthracene	2.2	BDL	0.015	1.5	5	3.2	
Benzo(b)flouranthene	BDL	BDL	BDL	1.4	4.8	10	
Benzo(a)pyrene	1.0	BDL	BDL	0.1	0.5	8	
Benzo(g,h,i,)perylene	0.410	BDL	BDL	2300	41000	32000	
Chrysene	2.8	BDL	0.014	140	450	77	
Dibenzo(a,h)anthracene	0.200	BDL	BDL	0.1	0.5	30	
Indeno(1,2,3-cd)pyrene	0.560	BDL	BDL	1.5	5.3	28	
All other 8310 Compounds	BDL	BDL	BDL		N/A		
FLA PRO:	BDL	BDL	BDL	340	2500	340	

^{*}Soil Cleanup Target Levels as per 62-775 F.A.C., Table II, Direct Exposure, Industrial Use Assumption/Leachability

Table 2, continued.
Summary of Laboratory Analysis
Confirmatory Soil Sampling
Mayport Naval Station Fuel Depot, Tank # 203
Mayport Naval Station, Duval County, Florida

	Confir	FDEP Soil Cleanup				
Parameter	CS-P7	CS-P8	CS-9	•	Γarget Le	
Volatile Organic Compounds:						
(EPA Method 8021)						
Benzene	BDL	0.0027	BDL	1.1	0.6	0.007
Toluene	BDL	BDL	BDL	380	2600	0.5
Ethylbenzene	BDL	BDL	BDL	1100	8400	0.6
Xylenes	BDL	BDL	BDL	5900	40000	0.2
MTBE	BDL	BDL	BDL	3200	22000	0.5
All Other 8021 Compounds	BDL	BDL	BDL	N/A		
Polynuclear Aromatic Hydrocarbons:						
(EPA Method 8310)						
Naphthalene	BDL	BDL	BDL	40	270	1.7
Flourene	BDL	BDL	BDL	2200	28000	160
Phenanthrene	BDL	BDL	BDL	2000	30000	250
Flouranthrene	BDL	BDL	BDL	2900	48000	1200
Pyrene	0.010	0.011	BDL	2200	37000	880
Benzo(a)anthracene	0.0053	0.053	BDL	1.5	5	3.2
Benzo(b)Flouranthene	BDL	BDL	BDL	1.4	4.8	10
Benzo(a)pyrene	BDL	BDL	BDL	0.1	0.5	8
Benzo(g,h,i,)perylene	BDL	BDL	BDL	2300	41000	32000
Chrysene	BDL	BDL	BDL	140	450	77
Dibenzo(a,h)anthracene	BDL	BDL	BDL	0.1	0.5	30
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	1.5	5.3	28
All other 8310 Compounds	BDL	BDL	BDL		N/A	
FLA PRO:	BDL	BDL	BDL	340	2500	340

^{*}Soil Cleanup Target Levels as per 62-775 F.A.C., Table II, Direct Exposure, Industrial Use Assumption/Leachability

Table 2, continued.

Summary of Laboratory Analysis
Confirmatory Soil Sampling
Mayport Naval Station Fuel Depot, Tank # 203
Mayport Naval Station, Duval County, Florida

	Confir	matory Soil	Sample II)	FDEP	Soil Clea	nup
Parameter	CS-10	CS-11	CS-12	CS-13	Residential Ir	Target	Levels*
Volatile Organic Compounds:							
(EPA Method 8021)							
Benzene	BDL	BDL	BDL	BDL	1.1	0.6	0.007
Toluene	BDL	0.014	0.014	0.005	380	2600	0.5
Ethylbenzene	BDL	BDL	BDL	BDL	1100	3400	0.6
Xylenes	BDL	0.006	0.006	0.001	5900 4	0000	0.2
MTBE	BDL	BDL	BDL	BDL	3200 2	2000	0.5
All Other 8021 Compounds	BDL	BDL	BDL	BDL		N/A	
Polynuclear Aromatic Hydrocarbons:							
(EPA Method 8310)							
Naphthalene	BDL	BDL	BDL	BDL ·	40	270	1.7
Flourene	BDL	BDL	BDL	BDL	2200	28000	160
Phenanthrene	BDL	BDL	BDL	BDL	2000	30000	250
Flouranthrene	BDL	BDL	BDL	BDL	2900	48000	1200
Pyrene	BDL	BDL	BDL	BDL	2200	37000	880
Benzo(a)anthracene	BDL	BDL	BDL	BDL	1.5	5	3.2
Benzo(b)Flouranthene	BDL	BDL	BDL	BDL	1.4	4.8	10
Benzo(a)pyrene	BDL	BDL	BDL	BDL	0.1	0.5	8
Benzo(g,h,i,)perylene	BDL	BDL	BDL	BDL	2300	41000	32000
Chrysene	BDL	BDL	BDL	BDL	140	450	77
Dibenzo(a,h)anthracene	BDL	BDL	0.013	BDL	0.1	0.5	30
Indeno(1,2,3-cd)pyrene	BDL	BDL	0.0085	BDL	1.5	5.3	28
All other 8310 Compounds	BDL	BDL	BDL	BDL		N/A	
FLA PRO:	BDL	BDL	BDL	BDL	340	2500	340

^{*}Soil Cleanup Target Levels as per 62-775 F.A.C., Table II, Direct Exposure, Industrial Use Assumption/Leachability

Table 3.
Summary of Laboratory Analysis
Groundwater Sampling - Temporary Monitor Wells #TMW-1 through TMW-13
Mayport Naval Station Fuel Depot, Tank #203
Mayport Naval Station, Duval County, Florida

			nitor Well			FDEP
Parameter	TMW-P1	TMW-P2	TMW-P3	TMW-P4	TMW-P5	GWCTL*
Volatile Organic Compounds:						
(EPA Method 601/602)						
Benzene	BDL	BDL	BDL	BDL	BDL	lμg/L
Toluene	BDL	BDL	BDL	BDL	BDL	40μg/L
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	30μg/L
	BDL	BDL	BDL	BDL	BDL	20μg/L
Xylenes	BDL	BDL	BDL	BDL	BDL	20μg/L 50μg/L
MTBE Tetrachloroethene	BDL	BDL	$2.0\mu g/L$	BDL	BDL	3.0μg/L
	BDL	BDL	BDL	BDL	BDL	3.0μg/1 N/A
All other 601/602 Compounds:	DDL	DDL	DDL	DDC	DDL	14/74
Semi-Volatile Organic Compounds:						
(EPA Method 8270)						
1-Methylnaphthalene	BDL	BDL	BDL	BDL	BDL	20μ g/L
2-Methylnaphthalene	BDL	BDL	BDL	BDL	BDL	20μ g/L
Naphthalene	BDL	BDL	BDL	BDL	BDL	20μg/L
Acenaphthene	BDL	BDL	0.62μ g/	L 0.63μ g/	L 1.6μg/L	20µg/L
Anthracene	BDL	BDL	BDL	BDL	BDL	2100µg/
Benzo(a)anthracene	BDL	BDL	BDL	BDL	BDL	0.2μ g /L
Benzo(b)Flouranthene	BDL	BDL	BDL	BDL	BDL	0.2μ g/L
Chrysene	BDL	BDL	BDL	BDL	BDL	4.8μ g /L
Flourene	BDL	0.25μg/	L 0.40µg/I	0.16µg/1	L 0.61ug/L	230µg/L
Phenanthrene	BDL	1.8µg/L	$1.4~\mu\mathrm{g/I}$	BDL	3.0µg/L	210µg/L
Flouranthene	BDL	0.35µg/	L 0.75µg/I	_ 0.41μg/l	L 1.9µg/L	280µg/L
Pyrene	BDL		L 0.59µg/I		L 1.4μ g/L	210µg/L
All other 8310 Compounds	BDL	BDL	BDL	BDL	BDL	N/A
FLA PRO:	BDL	BDL	BDL	BDL	BDL	5mg/L
EDB:	BDL	BDL	BDL	BDL	BDL	0.02µg/I
Total Lead:	10µg/L	11µg/1	_ 8µg/	L BDL	BDL	15μg/L

^{*}Groundwater Cleanup Target Levels as per 62-775 F.A.C., Table I, Groundwater Cleanup Target Levels

Table 3, Continued. Summary of Laboratory Analysis

Groundwater Sampling - Temporary Monitor Wells #TMW-1 through TMW-13
Mayport Naval Station Fuel Depot, Tank #203
Mayport Naval Station, Duval County, Florida

		FDEP				
Parameter	TMW-P6	TMW-P7	TMW-P8	TMW-9	TMW-10	GWCTL*
Volatile Organic Compounds:						
(EPA Method 601/602)						
Benzene	BDL	BDL	BDL	BDL	BDL	$1\mu g/L$
Toluene	BDL	BDL	BDL	BDL	BDL	40μg/L
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	30μg/L
Xylenes	BDL	BDL	BDL	BDL	BDL	$20\mu g/L$
MTBE	BDL	BDL	BDL	BDL	BDL	50μg/L
Tetrachloroethene	BDL	BDL	BDL	BDL	BDL	3.0µg/I
All other 601/602 Compounds:	BDL	BDL	BDL	BDL	BDL	N/A
Semi-Volatile Organic Compounds:						
(EPA Method 8270)						
1-Methylnaphthalene	3.1μ g/L	BDL	BDL	BDL	BDL	20μ g /L
2-Methylnaphthalene	BDL	BDL	BDL	BDL	BDL	20μg/L
Naphthalene	BDL	BDL	BDL	BDL	BDL	20μg/L
Acenaphthene	6.9µg/L	BDL	BDL	BDL	BDL	20μg/L
Anthracene	BDL	BDL	BDL	BDL	BDL	2100µg/
Benzo(a)anthracene	0.16µg/L	BDL	BDL	BDL	BDL	0.2µg/L
Benzo(b)Flouranthene	BDL	BDL	BDL	BDL	BDL	0.2μ g/L
Chrysene	0.16µg/L		BDL	BDL	BDL	4.8μ g/L
Flourene	1.2μ g/L		BDL	BDL	BDL	280μg/L
Phenanthrene	BDL	BDL	BDL	BDL	BDL	210µg/I
Flouranthene	1.7µg/L	BDL	BDL	BDL	BDL	280μg/I
Pyrene	$1.1\mu g/L$		BDL	BDL	BDL	210µg/I
All other 8310 Compounds	BDL	BDL	BDL	BDL	BDL	N/A
FLA PRO:	BDL	BDL	BDL	BDL	BDL	5mg/L
EDB:	BDL	BDL	BDL	BDL	BDL	0.02µg/I
Total Lead:	BDL	BDL	BDL	BDL	BDL	15μg/L

BDL = Below Detection Limits; N/A = Not Applicable

^{*}Groundwater Cleanup Target Levels as per 62-775 F.A.C., Table I, Groundwater Cleanup Target Levels

Table 3, Continued. Summary of Laboratory Analysis

Groundwater Sampling - Temporary Monitor Wells #TMW-1 through TMW-13
Mayport Naval Station Fuel Depot, Tank #203
Mayport Naval Station, Duval County, Florida

	M	FDEP		
Parameter	TMW-11	TMW-12	TMW-13	GWCTL*
Volatile Organic Compounds:				
(EPA Method 601/602)				
Benzene	BDL	BDL	BDL	$1\mu g/L$
Toluene	BDL	BDL	BDL	40μ g/L
Ethylbenzene	BDL	BDL	BDL	$30\mu g/L$
Xylenes	BDL	BDL	BDL	$20\mu g/L$
MTBE	BDL	BDL	BDL	$50\mu\mathrm{g/L}$
Tetrachloroethene	BDL	BDL	BDL	$3.0 \mu \mathrm{g/L}$
All other 601/602 Compounds:	BDL	BDL	BDL	N/A
Semi-Volatile Organic Compounds:				
(EPA Method 8270)				
1-Methylnaphthalene	BDL	BDL	BDL	$20\mu\mathrm{g/L}$
2-Methylnaphthalene	BDL	BDL	BDL	20μ g/L
Naphthalene	BDL	BDL	BDL	$20\mu g/L$
Acenaphthene	BDL	BDL	BDL	$20\mu g/L$
Anthracene	BDL	BDL	BDL	$2100\mu g/L$
Benzo(a)anthracene	BDL	BDL	BDL	$0.2\mu\mathrm{g/L}$
Benzo(b)Flouranthene	BDL	BDL	BDL	$0.2\mu\mathrm{g/L}$
Chrysene	BDL	BDL	BDL	4.8μ g/L
Flourene	BDL	BDL	BDL	280µg/L
Phenanthrene	BDL	BDL	BDL	210μg/L
Flouranthene	BDL	BDL	BDL	280μg/L
Pyrene	BDL	BDL	BDL	210μg/L
All other 8310 Compounds	BDL	BDL	BDL	N/A
FLA PRO:	BDL	BDL	BDL	5mg/L
EDB:	BDL	BDL	BDL	$0.02 \mu \mathrm{g/L}$
Total Lead:	BDL	BDL	BDL	15µg/L

BDL = Below Detection Limits; N/A = Not Applicable

^{*}Groundwater Cleanup Target Levels as per 62-775 F.A.C., Table I, Groundwater Cleanup Target Levels



1. Photograph facing generally northwest, overlooking former location of Tank #203, with circular concrete tank pad evident.



2. Photograph facing generally northeast, overlooking former location of Tank #203, with circular concrete tank pad evident.

Photodocumntation: Limited Closure Summary, Tank #203
Mayport Maval Station, Mayport, Florida
Facility ID # 8626008

ATTACHMENT A

Laboratory Reports
Confirmatory Soil Analysis (CS-P1 through CS-13)
Groundwater nalysis (TMW-P1 through TMW-13)

Environmental Conservation Laboratories, Inc.

4810 Executive Park Court, Suite 211 Jacksonville, Florida 32216-6069 904 / 296-3007 Fax 904 / 296-6210



DHRS Certification No. E82277

CLIENT : Environmental Recovery

ADDRESS: 251 Levy Road

www.encolabs.com

Atlantic Beach, FL 32233

REPORT #

: JAX11524

DATE SUBMITTED: May 30, 2000

DATE REPORTED : June 12, 2000

PAGE 1 OF 27

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT #: 2339

Mayport Naval Station Tank #203

05/30/00

#1 - CS-P1 @ 11:15 #2 - CS-P2 @ 12:25 #3 - CS-P3 @ 13:30 #4 - TMW-P1 @ 14:10 #5 - TMW-P2 @ 14:55 #6 - TMW-P3 @ 15:50

PROJECT MANAGER

Scott D. Martin

REPORT # : JAX11524

DATE REPORTED: June 12, 2000 REFERENCE: 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 2 OF 27

EPA METHOD 8021 -		
VOLATILE ORGANICS	CS-P1	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene O-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	4.0 U D1 2.1 U D1 2.1 U D1 2.1 U D1 2.1 U D1 4.0 U D1 2.0 U D1	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 101 06/01/00	<u>LIMITS</u> 28-165
EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	CS-P1	<u>Units</u>
Hydrocarbons (C8-C40)	8.2 U	mg/Kg
Surrogate: o-Terphenyl Date Extracted Date Analyzed	% RECOV 82 05/31/00 06/01/00	<u>LIMITS</u> 51-148

U = Compound was analyzed for but not detected to the level shown. D1 = Analyte value determined from a 1:1.72 dilution.

REPORT # : JAX11524 DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 3 OF 27

EPA METHOD 8310 - PAH BY HPLC	CS-P1	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	21 U 41 U 41 U 41 U 21 U 4.1 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 92 06/02/00 06/06/00	LIMITS 39-141
MISCELLANEOUS METHOD Percent Solids SM2540G Date Analyzed	<u>CS-P1</u> 80 06/04/00	Units %

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 4 OF 27

EPA METHOD 8021 -		
VOLATILE ORGANICS	CS-P2	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	3.0 U D1 1.8 U D1 1.8 U D1 1.8 U D1 1.8 U D1 3.0 U D1 2.0 U D1 2.0 U D1 2.0 U D1 2.0 U D1	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 85 06/01/00	<u>LIMITS</u> 28-165
EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	CS-P2	Units
Hydrocarbons (C8-C40)	7.2 U	mg/Kg
Surrogate: O-Terphenyl Date Extracted Date Analyzed	% RECOV 75 05/31/00 06/01/00	LIMITS 51-148

U = Compound was analyzed for but not detected to the level shown. D1 = Analyte value determined from a 1:1.72 dilution.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME: Mayport Naval Station
Tank #203

PAGE 5 OF 27

EPA METHOD 8310 - PAH BY HPLC	CS-P2	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(c) fluoranthene Benzo(a) pyrene Dibenzo(a, h) anthracene Benzo(g, h, i) perylene Indeno(1,2,3-cd) pyrene	18 U 36 U 36 U 36 U 18 U 3.6 U 3.6 U 7.2 U 3.6 U	µg/кд µg/кд µg/кд µg/кд µg/кд µg/кд µд/кд µд/кд µд/кд µд/кд µд/кд µд/кд µд/кд
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 94 06/02/00 06/06/00	<u>LIMITS</u> 39-141
MISCELLANEOUS METHOD Percent Solids SM2540G Date Analyzed	<u>CS-P2</u> 92 06/04/00	Units %

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 6 OF 27

EPA METHOD 8021 -		
VOLATILE ORGANICS	CS-P3	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U D2 1.4 U D2 1.4 U D2 1.4 U D2 1.4 U D2 1.4 U D2 2.0 U D2 1.0 U D2 1.0 U D2 1.0 U D2 1.0 U D2	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 88 06/01/00	<u>LIMITS</u> 28-165
EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	CS-P3	Units
Hydrocarbons (C8-C40)	8.4 U	mg/Kg
Surrogate: O-Terphenyl Date Extracted Date Analyzed	% RECOV 72 05/31/00 06/01/00	<u>LIMITS</u> 51-148

U = Compound was analyzed for but not detected to the level shown. D2 = Analyte value determined from a 1:1.09 dilution.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 7 OF 27

EPA METHOD 8310 -			
PAH BY HPLC		<u>CS-P3</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalen 2-Methylnaphthalen Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthe Benzo(k) fluoranthe Benzo(a) pyrene Dibenzo(a,h) anthra Benzo(g,h,i) peryl Indeno(1,2,3-cd) p	e ene ene acene ene	21 U 42 U 42 U 42 U 42 U 42 U 42 U 4.2 U	μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα
Surrogate: p-terphenyl Date Extracted Date Analyzed		% RECOV 84 06/02/00 06/06/00	<u>LIMITS</u> 39-141
MISCELLANEOUS	METHOD	CS-P3	Units
Percent Solids Date Analyzed	SM2540G	79 06/04/00	%

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station

Tank #203

PAGE 8 OF 27

EPA METHOD 601 - VOLATILE HALOCARBONS	TMW-P1	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethene 1,1-Dichloroethene c-1,2-Dichloroethene 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 2.0 U 1.0 U	μανιστικό του στο
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 102 06/03/00	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000 REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 9 OF 27

EPA METHOD 602 -		
VOLATILE AROMATICS	TMW-P1	Units
		, -
Methyl tert-butyl ether	2.0 U	μ g/L
Benzene	1.0 U	μ g/L
Toluene	1.0 U	$\mu { t g}/{ t L}$
Chlorobenzene	1.0 U	μg/L
Ethylbenzene	1.0 U	μ g/L
m-Xylene & p-Xylene	1.0 U	μ g/L
O-Xylene	1.0 U	μ g/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μ g/L
Surrogate:	% RECOV_	LIMITS
Bromofluorobenzene	121	59-132
Date Analyzed	06/03/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station Tank #203

PAGE 10 OF 27

EPA METHOD 8310 - PAH BY HPLC	TMW-P1	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	μασης μ
Surrogate: p-terphenyl Date Extracted Date Analyzed EPA METHOD 504 -	% RECOV 88 06/06/00 06/08/00	<u>LIMITS</u> 43-148
ETHYLENE DIBROMIDE	TMW-P1	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 05/31/00 06/01/00	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000 REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 11 OF 27

TOTAL METALS	METHOD	TMW-P1	Units
Lead Date Analyzed	200.7	0.010 I 06/02/00	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL Hydrocarbons (C8	ORG.	<u>TMW-P1</u> 0.20 U	<u>Units</u> mg/L
Surrogate: O-Terphenyl Date Extracted Date Analyzed		% RECOV 79 06/02/00 06/05/00	<u>LIMITS</u> 65-140

 $[\]mathtt{U} = \mathtt{Compound}$ was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL)
and the Practical Quantitation Level (PQL).

REPORT # : JAX11524 DATE REPORTED: June 12, 2000

PAGE 12 OF 27

EPA METHOD 601 -		
VOLATILE HALOCARBONS	TMW-P2	Units
Dichlorodifluoromethane	1.0 U	μg/L
Chloromethane	2.0 U	μg/L
Vinyl Chloride	1.0 U	μ g/L
Bromomethane	1.0 U	μ g/L
Chloroethane	2.0 U	μ g/L
Trichlorofluoromethane	2.0 U	μ g/L
1,1-Dichloroethene	1.0 U	$\mu g/L$
Methylene Chloride	2.0 U	μ g/L
t-1,2-Dichloroethene	1.0 U	μ g/L
1,1-Dichloroethane	1.0 U	$\mu g/L$
c-1,2-Dichloroethene	1.0 U	μ g/L
Chloroform	1.0 U	$\mu { t g}/{ t L}$
1,1,1-Trichloroethane	1.0 U	μ g/L
Carbon Tetrachloride	1.0 U	$\mu g/L$
1,2-Dichioroethane	1.0 U	μ g/L
Trichloroethene	1.0 U	μ g/L
1,2-Dichloropropane	1.0 U	μg/L
Bromodichloromethane	1.0 U	μ g/L
c-1,3-Dichloropropene	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	$\mu g/L$
1,1,2-Trichloroethane	. 1.0 U	μ g/L
Tetrachloroethene	1.0 U	μg/L
Dibromochloromethane	1.0 U	μg/L
Chlorobenzene	1.0 U	μg/L
Bromoform	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	μg/L
1,3-Dichlorobenzene 1,4-Dichlorobenzene	1.0 U	μg/L
	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μ g/L
Surrogate:	% RECOV_	LIMITS
Bromofluorobenzene	92	37-161
Date Analyzed	06/04/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 13 OF 27

EPA METHOD 602 -		
VOLATILE AROMATICS	TMW-P2	Units
		
Methyl tert-butyl ether	2.0 U	μg/L
Benzene	1.0 U	μg/L
Toluene Chlorobenzene Ethylbenzene	1.0 U	μg/L
Chlorobenzene	1.0 U	μ g/L
Ethylbenzene	1.0 U	μg/L
m-Vilana & n-Vilana	1.0 U	μ g/L
o-Xylene	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μ g/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	116	59-132
Date Analyzed	06/04/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 14 OF 27

EPA METHOD 8310 - PAH BY HPLC	TMW-P2	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 0.50 U 0.25 1.8 0.20 U 0.35 0.35 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	######################################
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 104 06/06/00 06/08/00	<u>LIMITS</u> 43-148

EPA METHOD 504 - ETHYLENE DIBROMIDE	TMW-P2	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 05/31/00 06/01/00	μg/L

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 15 OF 27

TOTAL METALS	METHOD	TMW-P2	Units
Lead Date Analyzed	200.7	0.011 I 06/02/00	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL OR	<u>G.</u>	TMW-P2	<u>Units</u>
Hydrocarbons (C8-C4	0)	0.20 U	mg/L
Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 66 06/02/00 06/05/00	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 16 OF 27

EPA METHOD 601 - VOLATILE HALOCARBONS	TMW-P3	Units
VOURTILL IMMOCARDOND		0111 00
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethane chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethane Trichloroethane trichloroethane 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethane Tetrachloroethane Tetrachloroethane Tetrachloroethane 1,1,2-Trichloroethane Tetrachloroethane Toliorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 2.0 U 1.0 U	µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 91 06/04/00	LIMITS 37-161
#BACK		

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 17 OF 27

EPA METHOD 602 -		
VOLATILE AROMATICS	TMW-P3	Units
Methyl tert-butyl ether	2.0 U	μ g/L
Benzene	1.0 U	μ g/L
Toluene	1.0 U	μg/L
Chlorobenzene	1.0 U	μg/L
Ethylbenzene	1.0 U	μ g/L
m-Xylene & p-Xylene	1.0 U	μg/L
o-Xylene	1.0 U	μ g/L
1,3-Dichlorobenzene	1.0 U	μ g/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	116	59-132
Date Analyzed	06/04/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 18 OF 27

EPA METHOD 8310 -		
PAH BY HPLC	TMW-P3	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.0 U 1.0 U 0.62 0.40 1.4 0.20 U 0.75 0.59 0.10 U	μασίλι μα με
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 103 06/06/00 06/08/00	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>TMW-P3</u>	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 05/31/00 06/01/00	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 19 OF 27

TOTAL METALS METHOD	<u>TMW-P3</u>	Units
Lead 200.7 Date Analyzed	0.0080 I 06/02/00	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	<u>TMW-P3</u> 0.20 U	<u>Units</u>
Surrogate: o-Terphenyl Date Extracted Date Analyzed	% RECOV 65 06/02/00 06/05/00	mg/L LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.
I = Analyte detected; value is between the Method Detection Level (MDL)

and the Practical Quantitation Level (PQL).

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 20 OF 27

EPA METHOD 601 -			
VOLATILE HALOCARBONS	LAB BLANK	LAB BLANK	Units
•			
Dichlorodifluoromethane	1.0 U	1.0 U	μg/L
Chloromethane	2.0 U	2.0 U	μ g/L
Vinyl Chloride	1.0 U	1.0 U	μ g/L
Bromomethane	1.0 U	1.0 U	μ g/L
Chloroethane	2.0 U	2.0 U	μ g/L
Trichlorofluoromethane	2.0 U	2.0 U	μ g/L
1,1-Dichloroethene	1.0 U	1.0 U	μ g/L
Methylene Chloride	2.0 U	2.0 U	μ g/L
t-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
1,1-Dichloroethane	1.0 U	1.0 U	μ g/L
c-1,2-Dichloroethene	1.0 U	1.0 U	μ g/L
Chloroform	1.0 U	1.0 U	μg/L
1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
Carbon Tetrachloride	1.0 U	1.0 U	μg/L
1,2-Dichloroethane	1.0 U	1.0 U	μ g/L
Trichloroethene	1.0 U	1.0 U	μg/L
1,2-Dichloropropane	1.0 U	1.0 U	μg/L
Bromodichloromethane	1.0 U	1.0 U	μg/L
c-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
1,1,2-Trichloroethane	1.0 U	1.0 U	μ g/L
Tetrachloroethene	1.0 U	1.0 U	μg/L
Dibromochloromethane	1.0 U	1.0 U	μ g/L
Chlorobenzene	1.0 U	1.0 U	μg/L
Bromoform	1.0 U	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	100	95	37-161
Date Analyzed	06/03/00	06/04/00	
## ## 1			

 $[\]mathbb{U}$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 21 OF 27

EPA METHOD 602 -		
VOLATILE AROMATICS	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether	2.0 U 1.0 U	μg/L μg/L
Benzene	1.0 U	μg/L
Toluene	1.0 U	μg/L
Chlorobenzene	1.0 U	μg/L
Ethylbenzene	1.0 U	μg/L
m-Xylene & p-Xylene	1.0 U	μg/L
o-Xylene	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 0	F3/ =
	% RECOV	LIMITS
Surrogate: Bromofluorobenzene	131	59-132
	06/03/00	
Date Analyzed	33, 33, 33	
EPA METHOD 8021 -		
VOLATILE ORGANICS	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether	2.0 U	μg/Kg
Benzene	1.0 U	μg/Kg
Toluene	1.0 U	μg/Kg
Chlorobenzene	1.0 U	μg/Kg
Ethylbenzene	1.0 U	μg/Kg
m-Xylene & p-Xylene	2.0 U	μg/Kg
o-Xylene	1.0 U	μg/Kg
1,3-Dichlorobenzene	1.0 U	μ g/Kg
1,4-Dichlorobenzene	1.0 U	μ g/Kg
1,2-Dichlorobenzene	1.0 U	μg/Kg
		+ +1×+m
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	94	28-165
Date Analyzed	06/01/00	

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11524 DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station
Tank #203

PAGE 22 OF 27

EPA METHOD 8310 - PAH BY HPLC	LAB BLANK	<u>Units</u>
Naphthalene	0.50 U	μg/L
Acenaphthylene	1.0 U	μg/L
■1-Methylnaphthalene	1.0 U	μg/L
2-Methylnaphthalene	1.0 U	μ g/L
Acenaphthene	0.50 U	μ g/L
Fluorene	0.10 U	μg/L
Phenanthrene	1.0 U	μg/L
Anthracene	0.20 U	μg/L
Fluoranthene	0.10 U	μg/L
Pyrene	0.10 U	μ g/L
Benzo(a) anthracene	0.10 U	μ g/L
Chrysene	0.10 U	μ g/L
Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrone	0.10 U	μg/L
Benzo(k) fluoranthene	0.10 U	μg/L
Benzo(a) pyrene	0.10 U	μg/L
Dibenzo(a,h)anthracene	0.10 U	μg/L
Benzo(g,h,i)perylene	0.10 U	μ g/L
Indeno(1,2,3-cd)pyrene	0.10 U	μ g/L
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 104 06/06/00 06/07/00	<u>LIMITS</u> 43-148

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 23 OF 27

EPA METHOD 8310 -		•
PAH BY HPLC	LAB BLANK	<u>Units</u>
	16 U 33 U 33 U 33 U 33 U 16 U 3.3 U 3.3 U 3.3 U 3.3 U 3.3 U 9.9 U 3.3 U	Units µg/Kg
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 101 06/02/00 06/05/00	LIMITS 39-141
EPA METHOD 504 - ETHYLENE DIBROMIDE	LAB BLANK	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 05/31/00 06/01/00	μg/L

 $[\]mathtt{U} = \mathtt{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 24 OF 27

o-Terphenyl 87 65-	.ts
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40) Surrogate: O-Terphenyl Surrogate: O-Terphenyl LAB BLANK Uni Mg/ 87	L
Surrogate: % RECOV LIM o-Terphenyl 87 65-	ts
o-Terphenyl 87 65-	L
Date Extracted 06/02/00 Date Analyzed 06/05/00	IITS 140
EPA METHOD FLPRO - PETROL. RESIDUAL ORG. LAB BLANK Uni	ts
Hydrocarbons (C8-C40) 6.6 U mg/	Kg
	IITS 148

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 25 OF 27

EPA METHOD 602 - VOLATILE AROMATICS	LAB BLANK	Units
Methyl tert-butyl ether Benzene	2.0 U 1.0 U	μg/L μg/L
Toluene Chlorobenzene	1.0 U 1.0 U	μg/L μg/L
Ethylbenzene _m-Xylene & p-Xylene	1.0 U 1.0 U	μg/L μg/L
o-Xylene 1,3-Dichlorobenzene	1.0 U 1.0 U	μg/L μg/L
1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 1.0 U	μg/L μg/L
Surrogate:	% RECOV_	LIMITS
Bromofluorobenzene Date Analyzed	129	59-132

 $[\]mathbf{U} = \mathbf{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 26 OF 27

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
				
EPA Method 601				
Methylene Chloride	120/ 89/102	51-155	30	29
Chloroform	129/ 97/107	63-145	28	16
Carbon Tetrachloride	137/ 89/116	64-146	42	21
Trichloroethene	125/ 86/ 98	60-140	37	24
Tetrachloroethene	115/ 88/109	66-146	27	21
Chlorobenzene	121/101/113	70-137	18	19
EPA Method 602				
Benzene	116/ 91/ 97	60-138	24	17
Toluene	121/112/128	57-138	8	16
Ethylbenzene	125/116/128	49-144	7	17
o-Xylene	122/112/121	50-151	8	17
EPA Method 8021			_	
Benzene	80/ 76/ 79	59-144	5	25
Toluene	82/ 73/ 77	67-132	12	58
Ethylbenzene	72/ 71/ 74	60-169	1	28
o-Xylene	82/ 77/ 81	62-183	_ 6	24
TDA Mathod 0210				
EPA Method 8310	81/ 77/ 69	59-111	5	12
Naphthalene	98/ 93/ 78	58-128	5	13
Acenaphthene	111/101/ 90	78-134	9	15
Benzo(a) pyrene	100/ 91/ 84	62-115	9	30
Benzo(g,h,i)perylene	TOO/ 21/ 04	02 410	_	

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than
Material Co.</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

REPORT # : JAX11524

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 27 OF 27

QUALITY CONTROL DATA

<u>Parameter</u>	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 8310 Naphthalene Acenaphthene Benzo(a)pyrene Benzo(g,h,i)perylene	84/ 82/ 84 98/ 98/ 97 94/106/ 79 99/ 98/112	48-130 36-127 64-141 58-168	2 <1 12 1	20 17 22 21
EPA Method 504 Ethylene Dibromide	86/ 91/ 84	58-135	6	22
TOTAL METALS Lead, 200.7	96/ 98/102	68-126	2	19
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	79/ 85/ 83	51-163	7	27
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	88/89/81	62-204	1	25

Environmental Conservation Laboratories Comprehensive QA Plan #910190

= Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

Christine T. Resto

From: To:

Christine T. Resto <cresto@encolabs.com> Matthew Foti, Ph.D. <mfoti@encolabs.com> Friday, June 09, 2000 3:27 PM 8021/arom for ELLIS (Bayard Water Line)

Sent:

Subject:

We are sending the five soil samples to ORL tonight--they break hold tomorrow afternoon. Per our conversation, the client wants results by EOB on Thursday. Thanks for your help. Have fun tonight.

QSARF #_ **ENVIRONMENTAL CONSERVATION LABORATORIES**

1

4810 Executive Park Court, Suite 211 10207 General Drive Jacksonville, Florida 32216-6069 Ph. (904) 296-3007 • Fax (904) 296-6210 Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way Cary, North Carolina 27513

Ph. (919) 677-1669 • Fax (919) 677-9846

CHAIN OF CUSTODY RECORD	PAGE / OF /		Date Due	REMARKS	Simple fits (prosest of)	S.1. 3x59m Eune	12 Yaz GlASS IN	61) 2x40,14 de 406,5	Zx the Dicks on Kest	1×10000 8/15 (20/04)	2, pool ches Ass (41)	1x 500 2 1/4 (MD/N)	S. J. Park inco a delan		on let ice the true	Suples And Delivered 12	The second of the second	CONTRACT TIME	DATE TIME		
ENCO CompQAP No.: 960038G/0 CHAINOF	REQUIRED ANALYSIS	5 HAD 6 5 HAD 6 50 15 15 15 15 15 15 15 15 15 15 15 15 15	83/18 158/158	UN UN HART STATEN UN EUN UN U	× × ×	XXX	XXX		X X X	メメメメ	メ×× ス×× ス・ ス・ ス・ ス・ ス・ ス・ ス・ ス・ ス・ ス・						TIME BOWN COCKETATIVES ACC	TIME RELINÇUSHED BY. (SIGNATURE)	TIME RECEIVED BY. (SIGNATURE)		
ENCO Com	MATRIX TYPE	12021-1-120 OIT	WATER O WATER	NASTEN NINIRO SOLVSO	×	×	×		×	X	X				200		BY: (SIGNATURE) DATE	BY: (SIGNATURE) DATE	(SIGNATURE) DATE	ENCO LOG NO. REMARKS	6 [IAXII634]
PROJECT NO.	#2339	CLENT PROJECT MAJAGER CLENT PROJECT MAJAGER CHILD CHICA NEW K	, Py 322.33	SAMPLE IDENTIFICATION	CS-P1	CS-P2	25-73		TMW-71	TMU-72	TMW-73						TIME PACIFICATED	Received	DAK TIME RELINQUISHED BY (SIGNATURE)	TIME CUSTODY INTACT	5/36/00 1940 MYES BNO
Kalpur Stother	16#203	PROJECT CO. SAMPLERSONAYE (State) (State) (SLIENT NAME (AVIRGOUM ON TAKEOUME)	LENT ADDRESS (CITY, STATE, 21P) AHANTIC BEACK	SAMPLE GRAB COMP	S/30/00 11:15 X	5/36/00 12:28 X	5/30/00 13:30 K		5/20/a 14:10 X	5/50/00 14:58 K	5/30/a 15:50 X			,			ARED BY: DORLANDO	URE)	SIGNATUR	PCABORATORY BY (SIGNATURE) DATE	Corlando .
PROPEREDE	12	PROJECT (OR (State)	CLIENT ADDF	STATION	4	25	3#3	4 &	- A 9	2#4	S. A. S.	6	11	12	13	14	SAMPLE KIT PREF	FELINGUISHE	RECORMEDIA	RECEIVED FOR	H Jacksonville

Environmental Conservation Laboratories, Inc. 4810 Executive Park Court, Suite 211 Jacksonville, Florida 32216-6069 904 / 296-3007 Fax 904 / 296-6210 www.encolabs.com



DHRS Certification No. E82277

CLIENT : Environmental Recovery

ADDRESS: 251 Levy Road

Atlantic Beach, FL 32233

REPORT #

: JAX11568

DATE SUBMITTED: May 31, 2000

DATE REPORTED : June 12, 2000

PAGE 1 Of 42

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT #: 2339

Mayport Naval Station Tank #203

05/31/00

- CS-P4 @ 09:30 - CS-P5 @ 10:05 #3 - CS-P6 @ 10:40 - CS-P7 #4 @ 11:10 - CS-P8 #5 @ 11:40 - TMW-P4 @ 14:40 - TMW-P5 @ 15:20 #7 #8 - TMW-P6 @ 16:00 #9 - TMW-P7 @ 16:40 #10 - TMW-P8 @ 17:15

PROJECT MANAGER

REPORT # : JAX11568 DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station
Tank #203

PAGE 2 Of 42

EPA METHOD 8021 -		
VOLATILE ORGANICS	CS-P4	Units
Methyl tert-butyl ether		***************************************
-	5.0 U D1	μg/Kg
Benzene	2.2 U D1	μg/Kg
Toluene	2.2 U D1	μg/Kg
Chlorobenzene	2.2 U D1	μg/Kg
Ethylbenzene	2.2 U D1	μg/Kg
m-Xylene & p-Xylene	5.0 U D1	μg/Kg
o-Xylene	2.0 U D1	μg/Kg
1,3-Dichlorobenzene	2.0 U D1	μg/Kg
1,4-Dichlorobenzene	2.0 U D1	μ g/Kg
1,2-Dichlorobenzene	2.0 U D1	μg/Kg
Gummaga ta .	% RECOV	TTMTMC
Surrogate: Bromofluorobenzene	101	<u>LIMITS</u> 28-165
Date Analyzed	06/06/00	28-165
Jace Anaryzed	00/00/00	
EPA METHOD FLPRO -		
PETROL. RESIDUAL ORG.	CS-P4	Units
proton		
Hydrocarbons (C8-C40)	7.7 U	mg/Kg
		9/ -1-9
Surrogate:	% RECOV	LIMITS
o-Terphenyl	90	51-148
Date Extracted	06/07/00	
Date Analyzed	06/08/00	

U = Compound was analyzed for but not detected to the level shown. D1 = Analyte value determined from a 1:1.89 dilution.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000
REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 3 Of 42

EPA METHOD 8310 - PAH BY HPLC		CS-P4		<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene		740 380 U 380 U 380 U 190 U 290 3900 77 U 9900 6900 2200 2800 38 U 38 U 1000 200 410 560	D2 D	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: p-terphenyl Date Extracted Date Analyzed		% RECOV 74 06/02/0 06/06/0	0	LIMITS 39-141
MISCELLANEOUS	METHOD	CS-P4		<u>Units</u>
Percent Solids Date Analyzed	SM2540G	86 06/04/0	0	010

U = Compound was analyzed for but not detected to the level shown. D2 = Analyte value determined from a 1:10 dilution.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000 REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 4 Of 42

EPA METHOD 8021 - VOLATILE ORGANICS	CS-P5	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	5.0 U D3 2.3 U D3 2.0 U D3	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 50 06/04/00	LIMITS 28-165
EPA METHOD FLPRO - PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	<u>CS-P5</u> 11 U	<u>Units</u> mg/Kg
Surrogate: o-Terphenyl Date Extracted Date Analyzed	% RECOV 75 06/07/00 06/08/00	<u>LIMITS</u> 51-148

U = Compound was analyzed for but not detected to the level shown. D3 = Analyte value determined from a 1:1.35 dilution.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station Tank #203

PAGE 5 Of 42

EPA METHOD 8310 - PAH BY HPLC	CS-P5	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	27 U 54 U 54 U 54 U 27 U 5.4 U 11 U 5.4 U 16 U 5.4 U	μg/Kg μg/Kg μα/Kg μα/Kg μα/Kg μα/Kg μα/Kg
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 81 06/02/00 06/06/00	<u>LIMITS</u> 39-141
MISCELLANEOUS METHOD	CS-P5	<u>Units</u>
Percent Solids SM2540G Date Analyzed	61 06/04/00	%

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 6 Of 42

EPA METHOD 8021 -		
VOLATILE ORGANICS	CS-P6	Units
Methyl tert-butyl ether	4.0 U D4	μ g/Kg
Benzene	1.8 U D4	μ g/Kg
Toluene	1.8 U D4	μ g/Kg
Chlorobenzenc	1.8 U D4	μg/Kg
Ethylbenzene	1.8 U D4	μg/Kg
m-Xylene & p-Xylene	4.0 U D4	μ g/Kg
o-Xylene	2.0 U D4	μg/Kg
1,3-Dichlorobenzene	2.0 U D4	μg/Kg
1,4-Dichlorobenzene	2.0 U D4	μg/Kg
1,2-Dichlorobenzene	2.0 U D4	μ g/Kg
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	66	28-165
	06/04/00	
Date Analyzed		
,		
EPA METHOD FLPRO -		
PETROL. RESIDUAL ORG.	CS-P6	Units
FROM:		
Hydrocarbons (C8-C40)	8.1 U	mg/Kg
Surrogate:	% RECOV	LIMITS
o-Terphenyl	79	51-148
Date Extracted	06/07/00	
Date Analyzed	06/08/00	

U = Compound was analyzed for but not detected to the level shown.

D4 = Analyte value determined from a 1:1.52 dilution.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000 REFERENCE: 2339

PROJECT NAME : Mayport Naval Station Tank #203

PAGE 7 Of 42

EPA METHOD 8310 - PAH BY HPLC		CS-P6	Units
Naphthalene Acenaphthylene 1-Methylnaphthale 2-Methylnaphthale Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracer Chrysene Benzo(b) fluoranth Benzo(a) pyrene Dibenzo(a,h) anthr Benzo(g,h,i) peryl Indeno(1,2,3-cd)	ne ne ne nene nene racene	20 U 41 U 41 U 41 U 20 U 4.1 U 4.1 U 8.1 U 52 45 15 14 4.1 U 4.1 U 4.1 U 4.1 U 4.1 U 4.1 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: p-terphenyl Date Extracted Date Analyzed		% RECOV 90 06/02/00 06/06/00	<u>LIMITS</u> 39-141
MISCELLANEOUS Percent Solids Date Analyzed	METHOD SM2540G	<u>CS-P6</u> 81 06/04/00	<u>Units</u> %

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 8 Of 42

EPA METHOD 8021 - VOLATILE ORGANICS	CS-P7	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	6.0 U D5 3.0 U D5 3.0 U D5 3.0 U D5 3.0 U D5 6.0 U D5 3.0 U D5 3.0 U D5 3.0 U D5 3.0 U D5	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
1,2-Dichlorobenzene Surrogate: Bromofluorobenzene Date Analyzed	3.0 U D5 ** RECOV 53 06/04/00	μg/Kg <u>LIMITS</u> 28-165
EPA METHOD FLPRO - PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	<u>CS-P7</u> 7.1 U	<u>Units</u> mg/Kg
Surrogate: o-Terphenyl Date Extracted Date Analyzed	% RECOV 85 06/07/00 06/08/00	<u>LIMITS</u> 51-148

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

D5 = Analyte value determined from a 1:2.78 dilution.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 9 Of 42

EPA METHOD 8310 - PAH BY HPLC		CS-P7	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthen Benzo(k) fluoranthen Benzo(a) pyrene Dibenzo(a,h) anthrac Benzo(g,h,i) perylen Indeno(1,2,3-cd) pyr	e e ene e	18 U 35 U 35 U 35 U 18 U 3.5 U 3.5 U 7.1 U 10 5.3 11 U 3.5 U	мд/кд мд/кд мд/кд мд/кд мд/кд мд/кд мд/кд мд/кд мд/кд мд/кд
Surrogate: p-terphenyl Date Extracted Date Analyzed		% RECOV 94 06/02/00 06/06/00	<u>LIMITS</u> 39-141
MISCELLANEOUS	METHOD	CS-P7	Units
Percent Solids Date Analyzed	SM2540G	93 06/04/00	8

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 10 Of 42

EPA METHOD 8021 - VOLATILE ORGANICS	CS-P8	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	4.0 U D6 2.7 I D6 2.2 U D6 2.2 U D6 2.2 U D6 4.0 U D6 2.0 U D6	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 63 06/04/00	<u>LIMITS</u> 28-165
EPA METHOD FLPRO - PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	<u>CS-P8</u> 7.1 U	<u>Units</u> mg/Kg
Surrogate: O-Terphenyl Date Extracted Date Analyzed	% RECOV 88 06/07/00 06/08/00	LIMITS 51-148

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

D6 = Analyte value determined from a 1:2.08 dilution.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 11 Of 42

EPA METHOD 8310 - PAH BY HPLC	CS-P8	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene	18 U 35 U 35 U 35 U 18 U 3.5 U 35 U 7.1 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	5.3 11 U 3.5 U 3.5 U 3.5 U 3.5 U 3.5 U 3.5 U 3.5 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 98 06/02/00 06/06/00	<u>LIMITS</u> 39-141
MISCELLANEOUS METHOD Percent Solids SM2540G Date Analyzed	<u>CS-P8</u> 93 06/04/00	Units %

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 12 Of 42

EPA METHOD 601 -		
VOLATILE HALOCARBONS	TMW-P4	Units
Dichlorodifluoromethane	1.0 U	$\mu g/L$
Chloromethane	2.0 U	μ g/L
Vinyl Chloride	1.0 U	$\mu g/L$
Bromomethane	1.0 U	μ g/L
Chloroethane	2.0 U	μ g/L
Trichlorofluoromethane	2.0 U	μ g/L
1,1-Dichloroethene	1.0 U	μ g/L
Methylene Chloride	2.0 U	μ g/L
t-1,2-Dichloroethene	1.0 U	μ g/L
1,1-Dichloroethane	1.0 U	μ g/L
c-1,2-Dichloroethene	1.0 U	μ g/L
Chloroform	1.0 U	μg/L
1,1,1-Trichloroethane	1.0 U	μg/L
Carbon Tetrachloride	1.0 U	μg/L
1,2-Dichloroethane	1.0 U	μ g/L
Trichloroethene	1.0 U	μ g/L
1,2-Dichloropropane	1.0 U	μg/L
Bromodichloromethane	1.0 U	μg/L
c-1,3-Dichloropropene	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	μ g/L
1,1,2-Trichloroethane	1.0 U	μ g/L
Tetrachloroethene	1.0 U	μg/L
Dibromochloromethane	1.0 U	μ g/L
Chlorobenzene	1.0 U	μg/L
Bromoform	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μ g/L
1,2-Dichlorobenzene	1.0 U	μg/L ·
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	90	37-161
Date Analyzed	06/04/00	
•		

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568
DATE REPORTED: June 12, 2000
REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 13 Of 42

EPA METHOD 602 -		
VOLATILE AROMATICS	<u>TMW-P4</u>	Units
Methyl tert-butyl ether	2.0 U	μ g/L
Benzene	1.0 U	μ g/L
Toluene	1.0 U	μg/L
Chlorobenzene	1.0 U	μ g/L
<pre>Ethylbenzene</pre>	1.0 U	μg/L
m-Xylene & p-Xylene	1.0 U	μg/L
o-Xylene	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μ g/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	106	59-132
Date Analyzed	06/04/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 14 Of 42

EPA METHOD 8310 - PAH BY HPLC	<u>TMW-P4</u>	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.0 U 1.0 U 0.63 0.16 1.0 U 0.20 U 0.41 0.45 0.10 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 109 06/06/00 06/08/00	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	TMW-P4	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 15 Of 42

	TOTAL METALS	METHOD	TMW-P4	Units
00000	Lead Date Analyzed	200.7	0.0050 U 06/05/00	mg/L
	EPA METHOD FLPRO - PETROL. RESIDUAL ORG Hydrocarbons (C8-C40		<u>TMW-P4</u> 0.20 U	Units mg/L
	Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 75 06/06/00 06/07/00	LIMITS 65-140

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 16 Of 42

EPA METHOD 601 - VOLATILE HALOCARBONS	<u>TMW-P5</u>	<u>Units</u>
Dichlorodifluoromethane	1.0 U	μ g/L
Chloromethane	2.0 U	μ g/L
■ Vinyl Chloride	1.0 U	μ g/L
Bromomethane	1.0 U	μg/L
Chloroethane	2.0 U	μg/L
Trichlorofluoromethane	2.0 U	μ g/L
1,1-Dichloroethene	1.0 U	μg/L
Methylene Chloride	2.0 U	μ g/L
t-1,2-Dichloroethene	1.0 U	μg/L
1,1-Dichloroethane	1.0 U	μ g/L
c-1,2-Dichloroethene	1.0 U	μ g/L
Chloroform	1.0 U	μ g/L
1,1,1-Trichloroethane	1.0 U	μ g/L
Carbon Tetrachloride	1.0 U	μ g/L
1,2-Dichloroethane	1.0 U	μ g/L
Trichloroethene	1.0 U	μ g/L
1,2-Dichloropropane	1.0 U	μ g/L
Bromodichloromethane	1.0 U	μ g/L
c-1,3-Dichloropropene	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	μ g/L
1,1,2-Trichloroethane	1.0 U	μ g/L
Tetrachloroethene	1.0 U	μ g/L
Dibromochloromethane	1.0 U	μ g/L
Chlorobenzene	1.0 U	μ g/L
Bromoform	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	μ g/L
1,3-Dichlorobenzene	1.0 U	μ g/L
1,4-Dichlorobenzene	1.0 U	μ g/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	101	37-161
Date Analyzed	06/03/00	
. —		

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 17 Of 42

EPA METHOD 602 - VOLATILE AROMATICS	TMW-P5	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L
o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 118 06/03/00	<u>LIMITS</u> 59-132

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 18 Of 42

EPA METHOD 8310 - PAH BY HPLC	<u>TMW-P5</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.6 U 1.6 0.61 3.0 0.20 U 1.9 1.4 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	μα/LL μα/LL
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 103 06/06/00 06/08/00	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	TMW-P5	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 19 Of 42

TOTAL METALS	METHOD	TMW-P5	Units
Lead Date Analyzed	200.7	0.0050 U 06/05/00	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL O	PRG.	<u>TMW-P5</u>	<u>Units</u>
Hydrocarbons (C8-C Surrogate: O-Terphenyl Date Extracted	40)	0.20 U **RECOV 80 06/06/00	mg/L <u>LIMITS</u> 65-140
Date Analyzed		06/07/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 20 Of 42

EPA METHOD 601 -		** . *
VOLATILE HALOCARBONS	<u>TMW-P6</u>	Units
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethane c-1,2-Dichloroethane Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene	TMW-P6 1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 1.0 U	Units price pr
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 103 06/03/00	<u>LIMITS</u> 37-161

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000 REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 21 Of 42

EPA METHOD 602 -		
VOLATILE AROMATICS	<u>TMW-P6</u>	<u>Units</u>
		,
Methyl tert-butyl ether	2.0 U	μg/L
Benzene	1.0 U	μg/L
Toluene	1.0 U	μ g/L
Chlorobenzene	1.0 U	μ g/L
Ethylbenzene	1.0 U	μg/L
m-Xylene & p-Xylene	1.0 U	μg/L
o-Xylene	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μ g/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	118	59-132
Date Analyzed	06/03/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000
REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 22 Of 42

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	<u>TMW-P6</u>	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 3.1 1.0 U 6.9 1.2 1.0 U 0.20 U 1.7 1.1 0.16 0.16 0.10 U	д/L μg/L μg/L μg/L μg/L μg/L μg/L μα/L
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 94 06/06/00 06/08/00	LIMITS 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>TMW-P6</u>	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station
Tank #203

PAGE 23 Of 42

TOTAL METALS	METHOD	<u>TMW-P6</u>	Units
Lead Date Analyzed	200.7	0.0050 U 06/05/00	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL		TMW-P6	Units
Hydrocarbons (C8	-C40)	0.20 U	mg/L
Surrogate: O-Terphenyl Date Extracted Date Analyzed	·	% RECOV 89 06/06/00 06/07/00	<u>LIMITS</u> 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME: Mayport Naval Station
Tank #203

PAGE 24 Of 42

EPA METHOD 601 -		
VOLATILE HALOCARBONS	<u>TMW - P7</u>	Units
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethane c-1,2-Dichloroethane Chloroform 1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethane Trichloroethane 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 1.0 U	μαση μα
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 100 06/03/00	<u>LIMITS</u> 37-161

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 25 Of 42

EPA METHOD 602 -		
VOLATILE AROMATICS	<u>TMW-P7</u>	<u>Units</u>
Methyl tert-butyl ether	2.0 U	μg/L
Benzene	1.0 U	μg/L
Toluene Chlorobenzene	1.0 U	μg/L
Chlorobenzene	1.0 U	μ g/L
Ethylbenzene	1.0 U	μg/L
m-Xylene & p-Xylene	1.0 U	μg/L
O-Xylene	1.0 U	μ g/L
1,3-Dichlorobenzene	1.0 U	μ g/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μ g/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	117	59-132
Date Analyzed	06/03/00	

 $[\]mathtt{U} = \mathtt{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 26 Of 42

EPA METHOD 8310 - PAH BY HPLC	<u>TMW-P7</u>	<u>Units</u>
Naphthalene	0.50 U	μ g/L
Acenaphthylene	1.0 U	μ g/L
1-Methylnaphthalene	1.0 U	μ g/L
2-Methylnaphthalene	1.0 U	μg/L
Acenaphthene	0.50 U	μ g/L
Fluorene	0.10 U	μ g/L
Phenanthrene	1.0 U	μ g/L
Anthracene	0.20 U	μ g/L
Fluoranthene	0.10 U	μ g/L
Pyrene	0.10 U	$\mu { t g}/{ t L}$
Benzo(a)anthracene	0.10 U	μ g/L
Chrysene	0.10 U	$\mu { m g}/{ m L}$
Benzo(b) fluoranthene	0.10 U	μ g/L
Benzo(k) fluoranthene Benzo(a) pyrene	0.10 U	$\mu { t g}/{ t L}$
Benzo(a)pyrene	0.10 U	$\mu { t g}/{ t L}$
Dibenzo(a,h)anthracene	0.10 U	μ g/L
Benzo(g,h,i)perylene	0.10 U	$\mu g/L$
Indeno(1,2,3-cd)pyrene	0.10 U	μ g/L
Surrogate:	% RECOV	LIMITS
p-terphenyl	105	43-148
Date Extracted	06/06/00	
Date Analyzed	06/08/00	

EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>TMW-P7</u>	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 27 Of 42

TOTAL METALS	METHOD	<u>TMW-P7</u>	Units
Lead Date Analyzed	200.7	0.0050 U 06/05/00	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL Hydrocarbons (C8	ORG.	<u>TMW-P7</u> 0.20 U	<u>Units</u> mg/L
Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 83 06/06/00 06/07/00	LIMITS 65-140

 $^{{\}tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 28 Of 42

EPA METHOD 601 - VOLATILE HALOCARBONS	<u>TMW-P8</u>	Units
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethane Trichloroethane 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 2.0 U 1.0 U	μημμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμ
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 92 06/06/00	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station
Tank #203

PAGE 29 Of 42

EPA METHOD 602 -		_
VOLATILE AROMATICS	<u>TMW-P8</u>	<u>Units</u>
		/
Methyl tert-butyl ether	2.0 U·	μ g/L
Benzene	1.0 U	μ g/L
Toluene	1.0 U	μ g/L
Chlorobenzene	1.0 U	μg/L
Ethylbenzene	1.0 U	μ g/L
m-Xylene & p-Xylene	1.0 U	μg/L
No-Xylene	1.0 U	$\mu { t g}/{ t L}$
1,3-Dichlorobenzene	1.0 U	μ g/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μ g/L
Surrogate:	% RECOV_	LIMITS
Bromofluorobenzene	107	59-132
Date Analyzed	06/06/00	

 $[\]mathtt{U} = \mathtt{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 30 Of 42

RESULTS OF ANALYSIS

EPA METHOD 8310 -		
PAH BY HPLC	TMW-P8	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U	μg/L μg/L μg/L μg/L μg/L
Fluorene Phenanthrene Anthracene Fluoranthene	0.10 U 1.0 U 0.20 U 0.10 U	μg/L μg/L μg/L μg/L
Pyrene Benzo(a) anthracene Chrysene	0.10 U 0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L
Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 98 06/06/00 06/08/00	<u>LIMITS</u> 43-148

EPA METHOD 504 - ETHYLENE DIBROMIDE	TMW-P8	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

 $\mathtt{U} = \mathtt{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 31 Of 42

TOTAL METALS	METHOD	<u>TMW-P8</u>	Units
Lead Date Analyzed	200.7	0.0050 U 06/05/00	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL		<u>TMW-P8</u>	<u>Units</u>
Hydrocarbons (C8-	C40)	0.20 U	mg/L
Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 74 06/06/00 06/07/00	<u>LIMITS</u> 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 32 Of 42

EPA METHOD 601 -		
VOLATILE HALOCARBONS	LAB BLANK	<u>Units</u>
Dichlorodifluoromethane	1.0 U	μ g/L
Chloromethane	2.0 U	μg/L
Vinyl Chloride	1.0 U	μg/L
Bromomethane	1.0 U	μg/L
Chloroethane	2.0 U	μg/L
Trichlorofluoromethane	2.0 U	μ g/L
1,1-Dichloroethene	1.0 U	μg/L
Methylene Chloride	2.0 U	μg/L
t-1,2-Dichloroethene	1.0 U	μ g/L
1,1-Dichloroethane	1.0 U	μ g/L
c-1,2-Dichloroethene	1.0 U	μg/L
Chloroform	1.0 U	μ g/L
1,1,1-Trichloroethane	1.0 U	μ g/L
Carbon Tetrachloride	1.0 U	μg/L
Carbon Tetrachloride 1,2-Dichloroethane	1.0 U	μ g/L
Trichloroethene	1.0 U	μ g/L
1,2-Dichloropropane	1.0 U	μ g/L
Bromodichloromethane	1.0 U	μ g/L
c-1,3-Dichloropropene	1.0 U	μ g/L
t-1,3-Dichloropropene	1.0 U	μ g/L
1,1,2-Trichloroethane	1.0 U	μ g/L
Tetrachloroethene	1.0 U	μ g/L
Dibromochloromethane	1.0 U	μg/L
Chlorobenzene	1.0 U	μ g/L
Bromoform	1.0 U	μ g/L
1,1,2,2-Tetrachloroethane	1.0 U	μ g/L
1,3-Dichlorobenzene	1.0 U	μ g/L
1,4-Dichlorobenzene	1.0 U	μ g/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate:	% RECOV_	LIMITS
Bromofluorobenzene	100	37-161
Date Analyzed	06/03/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME: Mayport Naval Station
Tank #203

PAGE 33 Of 42

RESULTS OF ANALYSIS

EPA METHOD 602 -

Methyl tert-butyl ether 2.0 U			
Benzene 1.0 U	VOLATILE AROMATICS	LAB BLANK	Units
Surrogate: Strong Strong	Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Bromofluorobenzene	1, z-bichiolobenzene	1.0 0	μ9/ц
Date Analyzed 06/03/00 EPA METHOD 8021 - VOLATILE ORGANICS Methyl tert-butyl ether 2.0 U μg/Kg Benzene 1.0 U μg/Kg Toluene 1.0 U μg/Kg Chlorobenzene 1.0 U μg/Kg Ethylbenzene 1.0 U μg/Kg m-Xylene & p-Xylene 2.0 U μg/Kg το-Xylene 1.0 U μg/Kg 1,3-Dichlorobenzene 1.0 U μg/Kg 1,3-Dichlorobenzene 1.0 U μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg LIMITS Surrogate: Bromofluorobenzene 89	Surrogate:	% RECOV	LIMITS
EPA METHOD 8021 - VOLATILE ORGANICS Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene 0-Xylene 1,3-Dichlorobenzene 1,0 U μg/Kg 1,0 U μg/Kg μg/Kg μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg μg/Kg μg/Kg μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg μg/Kg LIMITS Surrogate: Bromofluorobenzene			59-132
VOLATILE ORGANICS LAB BLANK Units Methyl tert-butyl ether 2.0 U μg/Kg Benzene 1.0 U μg/Kg Toluene 1.0 U μg/Kg Chlorobenzene 1.0 U μg/Kg Ethylbenzene 1.0 U μg/Kg m-Xylene & p-Xylene 2.0 U μg/Kg o-Xylene 1.0 U μg/Kg 1,3-Dichlorobenzene 1.0 U μg/Kg 1,4-Dichlorobenzene 1.0 U μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg Surrogate: % RECOV LIMITS Bromofluorobenzene 89 28-165	Date Analyzed	06/03/00	
Benzene 1.0 U μg/Kg Toluene 1.0 U μg/Kg Chlorobenzene 1.0 U μg/Kg Ethylbenzene 1.0 U μg/Kg m-Xylene & p-Xylene 2.0 U μg/Kg o-Xylene 1.0 U μg/Kg 1,3-Dichlorobenzene 1.0 U μg/Kg 1,4-Dichlorobenzene 1.0 U μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg Surrogate: % RECOV LIMITS Bromofluorobenzene 89 28-165	EPA METHOD 8021 -		
Toluene Chlorobenzene Ethylbenzene Ethylbenzene m-Xylene & p-Xylene 0-Xylene 1.0 U μg/Kg 1.0 U μg/Kg 1.3-Dichlorobenzene 1.0 U μg/Kg 1,4-Dichlorobenzene 1.0 U μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg 1,2-Dichlorobenzene 1.0 U μg/Kg 1.2-Dichlorobenzene 1.0 U μg/Kg 1.2-Dichlorobenzene	VOLATILE ORGANICS	LAB BLANK	Units
1.2-Dichlorobenzene 1.0 U $\mu g/Kg$ Surrogate: $\frac{Surrogate:}{Bromofluorobenzene}$ $\frac{SRECOV}{89}$ $\frac{LIMITS}{28-165}$	Methyl tert-butyl ether	2.0 U	
Bromofluorobenzene 89 28-165	Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
	Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 34 Of 42

LAB BLANK	<u>Units</u>
	μg/L μg/L
1.0 U 1.0 U 0.50 U	μg/L μg/L μg/L
0.10 U 1.0 U 0.20 U	μg/L μg/L μg/L
0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L μg/L
0.10 U 0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L μg/L
0.10 U	μg/L μg/L
% RECOV 104 06/06/00 06/07/00	LIMITS 43-148
	1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station
Tank #203

PAGE 35 Of 42

EPA METHOD 8310 - PAH BY HPLC	LAB BLANK	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene	16 U 33 U 33 U 33 U 16 U 3.3 U 3.3 U 6.6 U 3.3 U 9.9 U 3.3 U 9.9 U 3.3 U 3.3 U 3.3 U 3.3 U	ма/ка ма/ка ма/ка ма/ка ма/ка ма/ка ма/ка ма/ка ма/ка ма/ка
Indeno(1,2,3-cd) pyrene Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 101 06/02/00 06/05/00	LIMITS 39-141

EPA METHOD 504 - ETHYLENE DIBROMIDE	LAB BLANK	Units
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 36 Of 42

TOTAL METALS	METHOD		LAB BLANK	<u>Units</u>
Lead Date Analyzed	200.7	C	0.0050 U 06/05/00	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL OR	<u>g.</u>		LAB BLANK	<u>Units</u>
Hydrocarbons (C8-C4	0)		0.20 U	mg/L
Surrogate: o-Terphenyl Nonatriacontane Date Extracted Date Analyzed			% RECOV 75 62 06/06/00 06/07/00	LIMITS 65-140 71-139
EPA METHOD FLPRO - PETROL. RESIDUAL OR			LAB BLANK	Units
Hydrocarbons (C8-C4	0)		6.6 U	mg/Kg
Surrogate: o-Terphenyl Date Extracted Date Analyzed			% RECOV 99 06/07/00 06/08/00	<u>LIMITS</u> 51-148

 $extsf{U} = extsf{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 37 Of 42

EPA METHOD 601 -		
VOLATILE HALOCARBONS	LAB BLANK	Units
Dichlorodifluoromethane	1.0 U	μg/L
Chloromethane	2.0 U	μg/L
Vinyl Chloride	1.0 U	μg/L
Bromomethane	1.0 U	μg/L
Chloroethane	2.0 U	μg/L
Trichlorofluoromethane	2.0 U	μg/L
1,1-Dichloroethene	1.0 U	μg/L
Methylene Chloride	2.0 U	$\mu g/L$
t-1,2-Dichloroethene	1.0 U	μg/L
1,1-Dichloroethane	1.0 U	μg/L
c-1,2-Dichloroethene	1.0 U	μg/L
Chloroform	1.0 U	μg/L
1,1,1-Trichloroethane	1.0 U	μg/L
Carbon Tetrachloride 1,2-Dichloroethane	1.0 U	μg/L
■1,2-Dichloroethane	1.0 U	μg/L
Trichloroethene	1.0 U	μg/L
1,2-Dichloropropane	1.0 U	μg/L
Bromodichloromethane	1.0 U	μg/L
c-1,3-Dichloropropene	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	μg/L
1,1,2-Trichloroethane	1.0 U	μg/L
Tetrachloroethene	1.0 U	μg/L
Dibromochloromethane .	1.0 U	μg/L
Chlorobenzene	1.0 U	μg/L
Bromoform	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	95	37-161
Date Analyzed	06/04/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # :: JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 38 Of 42

RESULTS OF ANALYSIS

EPA METHOD 602 -

		** . ! to
VOLATILE AROMATICS	LAB BLANK	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	ма/Г ма/Г ма/Г ма/Г ма/Г ма/Г ма/Г
	% RECOV	LIMITS
Surrogate:	129	 59-132
Bromofluorobenzene	06/04/00	0,7 = -
Date Analyzed	00/01/00	
EPA METHOD 8021 - VOLATILE ORGANICS	LAB BLANK	<u>Units</u>
VOLATILE ORGANICS	and the second s	***************************************
Wolatile ORGANICS Methyl tert-butyl ether	2.0 U	 μg/Kg
WOLATILE ORGANICS Methyl tert-butyl ether Benzene	and the second s	***************************************
WOLATILE ORGANICS Methyl tert-butyl ether Benzene Toluene	2.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
WOLATILE ORGANICS Methyl tert-butyl ether Benzene Toluene Chlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
WOLATILE ORGANICS Methyl tert-butyl ether Benzene Toluene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
WOLATILE ORGANICS Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Wolatile ORGANICS Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Wolatile ORGANICS Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Wolatile ORGANICS Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Wolatile Organics Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Wolatile ORGANICS Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene Surrogate:	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Wolatile Organics Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg

 $[\]mathtt{U} = \mathtt{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 39 Of 42

L	EPA METHOD 601 -			
	VOLATILE HALOCARBONS	LAB BLANK		Units
	Dichlorodifluoromethane	1.0 U		μ g/L
	Chloromethane	2.0 U		μ g/L
	Vinyl Chloride	1.0 U		μ g/L
	Bromomethane	1.0 U		μ g/L
	Chloroethane	2.0 U		μ g/L
éssoco	Trichlorofluoromethane	2.0 U		μg/L
	1,1-Dichloroethene	1.0 U		μ g/L
	Methylene Chloride	2.0 U		μg/L
	t-1,2-Dichloroethene	1.0 U		μ g/L
	1,1-Dichloroethane	1.0 U		μg/L
	c-1,2-Dichloroethene	1.0 U		μg/L
\$60000	Chloroform	1.0 U		μ g/L
6 63779	1,1,1-Trichloroethane	1.0 U		μg/L
1	Carbon Tetrachloride 1,2-Dichloroethane	1.0 U		μg/L
		1.0 U		μ g/L
	Trichloroethene	1.0 U		μg/L
	1,2-Dichloropropane	1.0 U		μg/L
	Bromodichloromethane	1.0 U		μg/L
100000	c-1,3-Dichloropropene	1.0 U		μg/L
6000	t-1,3-Dichloropropene	1.0 U		μg/L
	1,1,2-Trichloroethane	1.0 U		μg/L
€0000	Tetrachioroethene	1.0 U		μg/L
	Dibromochloromethane	1.0 U		μg/L
\$10000C	Chlorobenzene	1.0 U		μg/L
10000	Bromoform	1.0 U		μg/L
	1,1,2,2-Tetrachloroethane	1.0 U		μg/L
	1,3-Dichlorobenzene	1.0 U		μg/L
	1,4-Dichlorobenzene	1.0 U		μg/L
	1,2-Dichlorobenzene	1.0 U		μ g/L
	Surrogate:	% RECOV		LIMITS
46 SHALL	Bromofluorobenzene	99		37-161
	Date Analyzed	06/06/00		

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 40 Of 42

EPA METHOD 602 -		
VOLATILE AROMATICS	<u>LAB</u> <u>BLANK</u>	<u>Units</u>
Methyl tert-butyl ether	2.0 U	μg/L
Benzene	1.0 U	μg/L
Toluene	1.0 U	μ g/L
Chlorobenzene	1.0 U	μg/L
Ethylbenzene	1.0 U	μ g/L
m-Xylene & p-Xylene	1.0 U	μg/L
Co-Xylene	1.0 U	μ g/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	115	59-132
Date Analyzed	06/06/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 41 Of 42

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 601				
Methylene Chloride	120/ 89/102	51-155	30	29
Chloroform	129/ 97/107	63-145	28	16
Carbon Tetrachloride	137/ 89/116	64-146	42	21
Trichloroethene	125/ 86/ 98	60-140	37	24
Tetrachloroethene	115/ 88/109	66-146	27	21
Chlorobenzene	121/101/113	70-137	18	19
EPA Method 602				
Benzene	116/ 91/ 97	60-138	24	17
Toluene	121/112/128	57-138	8	16
Ethylbenzene	125/116/128	49-144	7	17
o-Xylene	122/112/121	50-151	8	17
EPA Method 8021				
Benzene	80/ 76/ 79	59-144	5	25
Toluene	82/ 73/ 77	67-132	12	58
Ethylbenzene	72/ 71/ 74	60-169	1	28
o-Xylene	82/ 77/ 81	62-183	6	24
EPA Method 8310				
Naphthalene	81/ 77/ 69	59-111	5	12
Acenaphthene	98/ 93/ 78	58-128	5	13
Benzo(a) pyrene	111/101/ 90	78-134	9	15
Benzo(g,h,i)perylene	100/ 91/ 84	62-115	9	30

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

REPORT # : JAX11568

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 42 Of 42

OUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 8310 Naphthalene Acenaphthene Benzo(a)pyrene Benzo(g,h,i)perylene	84/ 82/ 84 98/ 98/ 97 94/106/ 79 99/ 98/112	48-130 36-127 64-141 58-168	2 <1 12 1	20 17 22 21
EPA Method 504 Ethylene Dibromide	120/110/112	58-135	9	22
TOTAL METALS Lead, 200.7	102/102/103	68-126	<1	19
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	81/ 81/ 79	51-163	<1	27
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	88/ 89/ 84	62-204	1	25

Environmental Conservation Laboratories Comprehensive QA Plan #910190

= Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.



ENVIRONMENTAL CONSERVATION LABORATORIES

QSARF #

4810 Executive Park Court, Suite 211 Jacksonville, Florida 32216-6039 Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive

Orlando, Florida 32824-8529 Cary, P

1015 Passport Way Cary, North Carolina 27513

Ph. (407) 826-5314 • Fax (407) 850-6945 Ph. (919) 677-1669 • Fax (919) 677-9846

2 x 1000 , 26/14 (14.5/1) 1x Soul Paly (this)(p) - X GW: 2 × 40m MM) (40) (40) (x1000nl6145)(pan) 2x Youl links (wa) (SOB) 5/4 a (11) Soil: 3x San Entore bags and Pacel on well as Endo strople Kot Consideral 0850 TIME Should HAND-Delivered to Systematives sold in f CHAIN OF CUSTODY RECORD EXPEDITED REPORT DELIVERY (surcharge) TIME STANDARD
REPORT
DELIVERY REMARKS Cono Jax DATE PAGE Date Due: 5 Ş REQUIRED ANALYSIS RECEIVED BY: (SIGNATURE) will cestaly labore NA HESOF BARNATIVE OF MANAGER OF MANAGER OF CONTRINERS SUBMITTED RELINQUISHED ENCO CompQAP No.: 960038G/0 (Ads) TIME TIME TIME ₹ DATE DATE REMARKS MATRIX TYPE ENCO LOG NO. RELINQUISHED BY: (SIGNATURE) (SHEDBY: (SIGNATURE) D BY: (SIGNATURE) PHOGON 24 - 2700 9 0 CUSTODY INTACT P.O. NUMBER SAMPLE IDENTIFICATION XX ES Mr. Chuck Nevin Thy 2-24 TMU- PS 3d-MW 32233 THO. P.T. TMW-R 5/31/00 (18.50) 31/00/18:50 62-54 40-5 C5-Pb CS-78 5300 830 DATE TIME \$ 14.039 TIME TIME GRAB COMP 251 ceny Kow Alashi Bad DATE ENVIRONMENTAL KELOWLY IN PROMOTER BENTE NAVA SKATIES 10/1/10 00:9 (p:0) 05/201 05,60 11:10 **DORLANDO** CLIENT ADDRESS (CITY, STATE, 2IP) 131/00 5/3/100 REUNQUISHED BY: (SIGNATURE) 131/00 2/31/00 SAMPLE KIT PREPARED BY: E Jacksonville JACKSONVILLE STATION 1043 7#2 248 14. 7 FOT # # 12

Environmental Conservation Laboratories, Inc. 4810 Executive Park Court, Suite 211 Jacksonville, Florida 32216-6069 904 / 296-3007

Fax 904 / 296-6210 www.encolabs.com



DHRS Certification No. E82277

CLIENT: Environmental Recovery

ADDRESS: 251 Levy Road

Atlantic Beach, FL 32233

REPORT #

: JAX11582

DATE SUBMITTED: June 1, 2000

DATE REPORTED : June 12, 2000

PAGE 1 OF 42

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT #: 2339

Mayport Naval Station Tank #203

06/01/00

#1 - CS-9 @ 09:35 #2 - CS-10 @ 10:00 #3 - CS-11 @ 10:30 - CS-12 @ 10:50 #4 #5 - CS-13 @ 12:55 - TMW-9 @ 13:45 #6 #7 - TMW-10 @ 14:30 #8 - TMW-11 @ 15:05 #9 - TMW-12 @ 15:45 #10 - TMW-13 @ 16:20

PROJECT MANAGER

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 2 OF 42

EPA METHOD 8021 - VOLATILE ORGANICS	<u>CS-9</u>	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	5.0 U D1 2.8 U D1 2.8 U D1 2.8 U D1 2.8 U D1 2.8 U D1 2.0 U D1 2.0 U D1 2.0 U D1 2.0 U D1 2.0 U D1	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 126 06/04/00	LIMITS 28-165
EPA METHOD FLPRO - PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	<u>CS-9</u> 8.2 U	<u>Units</u> mg/Kg
Surrogate: o-Terphenyl Date Extracted Date Analyzed	% RECOV 79 06/07/00 06/08/00	<u>LIMITS</u> 51-148

 $[\]mathbb{U}$ = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

D1 = Analyte value determined from a 1:2.17 dilution.

REPORT # : JAX11582
DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 3 OF 42

EPA METHOD 8310 - PAH BY HPLC		<u>CS-9</u>	Units
Naphthalene Acenaphthylene 1-Methylnaphthale 2-Methylnaphthale Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracen Chrysene Benzo(b) fluoranth Benzo(k) fluoranth Benzo(a) pyrene Dibenzo(a,h) anthr Benzo(g,h,i) peryl Indeno(1,2,3-cd) p	ne e ene ene acene ene	21 U 41 U 41 U 41 U 21 U 4.1 U 4.1 U 8.2 U 4.1 U	µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg µg/Kg
Surrogate: p-terphenyl Date Extracted Date Analyzed		% RECOV 91 06/07/00 06/09/00	<u>LIMITS</u> 39-141
MISCELLANEOUS Percent Solids	METHOD SM2540G	<u>CS-9</u> 80	Units %
Date Analyzed	5125400	06/04/00	- -

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 4 OF 42

EPA METHOD 8021 -		
VOLATILE ORGANICS	CS-10	Units
	www.commission.com	
Methyl tert-butyl ether	5.0 U D2	μ g/Kg
Benzene	2.2 U D2	μ g/Kg
Toluene .	2.2 U D2	μg/Kg
Chlorobenzene	2.2 U D2	μg/Kg
Ethylbenzene	2.2 U D2	μg/Kg
m-Xylene & p-Xylene	5.0 U D2	μg/Kg
o-Xylene	2.0 U D2	μg/Kg
1,3-Dichlorobenzene	2.0 U D2	μ g/Kg
1,4-Dichlorobenzene	2.0 U D2	μg/Kg
1,2-Dichlorobenzene	2.0 U D2	μg/Kg
	% RECOV	LIMITS
Surrogate:	108	28-165
Bromofluorobenzene Date Analyzed	06/04/00	20-103
Date Analyzed	06/04/00	
EPA METHOD FLPRO -		
PETROL. RESIDUAL ORG.	CS-10	Units
FEIROD: REDIDONE ONC.	Manage State of the State of th	
Hydrocarbons (C8-C40)	7.7 U	mg/Kg
in an observation (or one)		J. J
Surrogate:	% RECOV	LIMITS
o-Terphenyl	89	51-148
Date Extracted	06/07/00	
Date Analyzed	06/08/00	

U = Compound was analyzed for but not detected to the level shown. D2 = Analyte value determined from a 1:1.92 dilution.

REPORT # : JAX11582 DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station

Tank #203

PAGE 5 OF 42

EPA METHOD 8310 - PAH BY HPLC			<u>CS-10</u>	Units
Naphthalene Acenaphthylene 1-Methylnaphthalen 2-Methylnaphthalen Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthe Benzo(k) fluoranthe Benzo(a) pyrene Dibenzo(a,h) anthra Benzo(g,h,i) peryle Indeno(1,2,3-cd) py	ene ene ene acene		19 U 38 U 38 U 38 U 19 U 3.8 U 7.7 U 3.8 U	μα/Κα μα/κα μ
Surrogate: p-terphenyl Date Extracted Date Analyzed			% RECOV 80 06/07/00 06/09/00	<u>LIMITS</u> 39-141
MISCELLANEOUS	METHOD		<u>CS-10</u>	Units
Percent Solids Date Analyzed	SM2540G	•	86 06/04/00	%

 $[\]mathtt{U} = \mathtt{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11582
DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 6 OF 42

EPA METHOD 8021 -		
VOLATILE ORGANICS	CS-11	Units
	- Annual	
Methyl tert-butyl ether	3.0 U D3	μg/Kg
Benzene	1.7 U D3	μg/Kg
Toluene	14 D3	μg/Kg
Chlorobenzene	1.7 U D3	μg/Kg
Ethylbenzene	1.7 U D3	μg/Kg
m-Xylene & p-Xylene	4.0 I D3	μ g/Kg
o-Xylene	2.0 I D3	μ g/Kg
1,3-Dichlorobenzene	2.0 U D3	μg/Kg
1,4-Dichlorobenzene	2.0 U D3	μ g/Kg
1,2-Dichlorobenzene	2.0 U D3	μg/Kg
Surrogate:	% RECOV	LIMITS
61	103	28-165
Date Analyzed	06/04/00	
		•
DDA MEMILOD EL DDO		
EPA METHOD FLPRO -	CS-11	Units
PETROL. RESIDUAL ORG.	<u> </u>	UIILUS
Hydrocarbons (C3-C40)	7,2 3	mg/Kg
Surrogate:	% RECOV	LIMITS
o-Terphenyl	79	51-148
Date Extracted	06/07/00	
Date Analyzed	06/08/00	

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

D3 = Analyte value determined from a 1:1.61 dilution.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 7 OF 42

EPA METHOD 8310 - PAH BY HPLC		<u>CS-11</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene		18 U 36 U 36 U 36 U 18 U 3.6 U 3.6 U 7.2 U 3.6 U	μg/Kg
Surrogate: p-terphenyl Date Extracted Date Analyzed		% RECOV 97 06/07/00 06/09/00	LIMITS 39-141
	ETHOD 12540G	<u>CS-11</u> 92 06/04/00	Units %

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582
DATE REPORTED: June 12, 2000
REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 8 OF 42

EPA METHOD 8021 -		
VOLATILE ORGANICS	CS-12	Units

Methyl tert-butyl ether	4.0 U D2	μ g/Kg
Benzene	2.2 U D2	μ g/Kg
Toluene	14 D2	μ g/Kg
Chlorobenzene	2.2 U D2	μ g/Kg
Ethylbenzene	2.2 U D2	μg/Kg
m-Xylene & p-Xylene	4.0 I D2	μg/Kg
o-Xylene	2.0 I D2	μ g/Kg
1,3-Dichlorobenzene	2.0 U D2	μg/Kg
1,4-Dichlorobenzene	2.0 U D2	μg/Kg
1,2-Dichlorobenzene	2.0 U D2	μg/Kg
	% RECOV	TTMTMC
Surrogate: Bromofluorobenzene	85	<u>LIMITS</u> 28-165
	06/04/00	40-100
Date Analyzed	00/04/00	
•		
EPA METHOD FLPRO -		•
PETROL. RESIDUAL ORG.	CS-12	Units
Hydrocarbons (C8-C40)	7.5 U	mg/Kg
		5,5
Surrogate:	% RECOV	LIMITS
o-Terpheny l	88	51-148
Date Extracted	06/07/00	
Date Analyzed	06/08/00	

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

D2 = Analyte value determined from a 1:1.92 dilution.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station

Tank #203

PAGE 9 OF 42

EPA METHOD 8310 -		
PAH BY HPLC	CS-12	Units
Naphthalene	19 U	μ g/Kg
Acenaphthylene	38 U	μ g/Kg
1-Methylnaphthalene 2-Methylnaphthalene	38 U	μ g/Kg
Acenaphthene	38 U	μg/Kg
Fluorene	19 U 3.8 U	μg/Kg
Phenanthrene	3.8 U	μg/Kg
Anthracene	7.5 U	μg/Kg
Fluoranthene	7.5 U	μg/Kg μg/Kg
Pyrene	3.8 U	μg/Kg μg/Kg
Benzo(a) anthracene	11 U	μg/Kg μg/Kg
Chrysene	3.8 U	μg/Kg
Benzo(b) fluoranthene	3.8 U	μg/Kg
Benzo(k) fluoranthene	3.8 U	μg/Kg
Benzo(a)pyrene	3.8 U	μg/Kg
Dibenzo(a,h)anthracene	13	μg/Kg
Benzo(g,h,i)perylene	3.8 U	μg/Kg
Indeno(1,2,3-cd)pyrene	8.5	μ g/Kg
Surrogate:	% RECOV	TTVTMC
p-terphenyl	92	<u>LIMITS</u> 39-141
Date Extracted	06/07/00	33-141
Date Analyzed	06/09/00	
	, 00/05/00	
MISCELLANEOUS METHOD	CS-12	Units
		OIII CB
Percent Solids SM2540G	88	%
Date Analyzed	06/04/00	
Principles of the control of the con		

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582 DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 10 OF 42

EPA METHOD 8021 -		
VOLATILE ORGANICS	CS-13	Units
	· ·	***************************************
Methyl tert-butyl ether	2.0 U D4	μg/Kg
Benzene	1.0 U D4	μ g/Kg
Toluene	5.0 I D4	μg/Kg
Chlorobenzene	1.4 U D4	μg/Kg
Ethylbenzene	1.4 U D4	μg/Kg
m-Xylene & p-Xylene	2.0 U D4	μg/Kg
o-Xylene	1.0 I D4	μg/Kg
1,3-Dichlorobenzene	1.0 U D4	μg/Kg
1,4-Dichlorobenzene	1.0 U D4	μg/Kg
1,2-Dichlorobenzene	1.0 U D4	μg/Kg
	% RECOV	TTMTMC
Surrogate: Bromofluorobenzene	86	<u>LIMITS</u> 28-165
	06/04/00	20-105
Date Analyzed	00/04/00	
EPA METHOD FLPRO -		
PETROL. RESIDUAL ORG.	CS-13	Units
820	mana and a solven management and a solven an	
Hydrocarbons (C8-C40)	7.8 U	mg/Kg
Surrogate:	% RECOV	LIMITS
o-Terphenyl	72	51-148
Date Extracted	06/07/00	
Date Analyzed	06/08/00	

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 11 OF 42

EPA METHOD 8310 - PAH BY HPLC		<u>CS-13</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracen Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyren		19 U 39 U 39 U 39 U 19 U 3.9 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: p-terphenyl Date Extracted Date Analyzed		% RECOV 101 06/07/00 06/10/00	LIMITS 39-141
MISCELLANEOUS M	ETHOD	CS-13	<u>Units</u>
Percent Solids S Date Analyzed	M2540G	85 06/04/00	%

 $_{-}$ U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582
DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 12 OF 42

EPA METHOD 601 -		
VOLATILE HALOCARBONS	<u>TMW - 9</u>	Units
Dichlorodifluoromethane	1.0 U	μg/L
Chloromethane	2.0 U	μg/L
Vinyl Chloride	1.0 U	μg/L
Bromomethane	1.0 U	μg/L
Chloroethane	2.0 U	μg/L
Trichlorofluoromethane	2.0 U	μg/L
1,1-Dichloroethene	1.0 U	μg/L
Methylene Chloride	2.0 U	μg/L
t-1,2-Dichloroethene	1.0 U	μg/L
@1,1-Dichloroethane	1.0 U	μg/L
c-1,2-Dichloroethene	1.0 U	μg/L
Chloroform	1.0 U	μg/L
1,1,1-Trichloroethane	1.0 U	μg/L
Carbon Tetrachloride	1.0 U	μg/L
1,2-Dichloroethane	1.0 U	μg/L
Trichloroethene	1.0 U	μg/L
[1,2-Dichloropropane	1.0 U	μg/L
Bromodichloromethane	1.0 U	μg/L
c-1,3-Dichloropropene	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	μg/L
1,1,2-Trichloroethane	1.0 U	μg/L
Tetrachloroethene	1.0 U	μg/L
Dibromochloromethane	1.0 U	μg/L
Chlorobenzene	1.0 U	μg/L
Bromoform	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	μg/L
[1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μ g/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	102	37-161
Date Analyzed	06/03/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582 DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 13 OF 42

EPA METHOD 602 -	mar. O	TT:- 3 to
VOLATILE AROMATICS	TMW - 9	Units
Methyl tert-butyl ether Benzene	2.0 U 1.0 U	μg/L μg/L
Toluene Chlorobenzene	1.0 U 1.0 U	μg/L μg/L
Ethylbenzene	1.0 U	μ g/L
m-Xylene & p-Xylene	1.0 U	μg/L
o-Xylene	1.0 U	μg/L
1,3-Dichlorobenzene 1,4-Dichlorobenzene	1.0 U 1.0 U	μg/L μg/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	132	59-132
Date Analyzed	06/03/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582 DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 14 OF 42

EPA METHOD 8310 - PAH BY HPLC	<u>TMW-9</u>	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Genzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 107 06/06/00 06/08/00	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>TMW-9</u>	<u>Units</u>
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 15 OF 42

TOTAL METALS	METHOD	<u>TMW - 9</u>	Units
Lead Date Analyzed	200.7	0.0050 U 06/06/00	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL	ORG.	<u>TMW-9</u>	Units
Hydrocarbons (C8-	C40)	0.20 U	mg/L
Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 90 06/06/00 06/07/00	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582
DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 16 OF 42

EPA METHOD 601 -		
VOLATILE HALOCARBONS	TMW-10	<u>Units</u>
Dichlorodifluoromethane	1.0 U	μg/L
Chloromethane	2.0 U	μ g/L
Vinyl Chloride	1.0 U	μg/L
Bromomethane	1.0 U	μg/L
Chloroethane	2.0 U	μg/L
Trichlorofluoromethane	2.0 I	μ g/L
1,1-Dichloroethene	1.0 U	μ g/L
Methylene Chloride	2.0 U	μ g/L
t-1,2-Dichloroethene	1.0 U	μg/L
1,1-Dichloroethane	1.0 U	μg/L
c-1,2-Dichloroethene	1.0 U	μg/L
Chloroform	1.0 U	μ g/L
1,1,1-Trichloroethane	1.0 U	μ g/L
Carbon Tetrachloride	1.0 U	μ g/L
1,2-Dichloroethane	1.0 U	μ g/L
Trichloroethene	1.0 U	μg/L
1,2-Dichloropropane	1.0 U	μg/L
Bromodichloromethane	1.0 U	μ g/L
c-1,3-Dichloropropene	1.0 U	μ g/L
t-1,3-Dichloropropene	1.0 U	μ g/L
1,1,2-Trichloroethane	1.0 U	μ g/L
Tetrachloroethene	1.0 U	μg/L
Dibromochloromethane	1.0 U	μg/L
Chlorobenzene	1.0 U	μg/L
Bromoform	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	$\mu g/L$
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	68	37-161
Date Analyzed	06/07/00	

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL)
and the Practical Quantitation Level (PQL).

REPORT # : JAX11582 DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station

Tank #203

PAGE 17 OF 42

EPA METHOD 602 - VOLATILE AROMATICS	<u>TMW-10</u>	<u>Units</u>
Methyl tert-butyl ether	2.0 U	μg/L
Benzene	1.0 U	μg/L
Toluene	1.0 U	μg/L
Chlorobenzene	1.0 U	μg/L
Ethylbenzene	1.0 U	μg/L
m-Xylene & p-Xylene	1.0 U	μ g/L
o-Xylene	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μ g/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	95	59-132
Date Analyzed	06/07/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582 DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station

Tank #203

PAGE 18 OF 42

EPA METHOD 8310 - PAH BY HPLC	<u>TMW-10</u>	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	μg/L μg/L μg/L μασ/L μασ/L μασ/L μασ/L μασ/L μασ/L μασ/L μασ/L μασ/L μασ/L μασ/L μασ/L
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 86 06/06/00 06/08/00	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>TMW-10</u>	<u>Units</u>
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

 $[\]mathbb{U}$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000 REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 19 OF 42

TOTAL METALS	METHOD	<u>TMW-10</u>	Units
Lead Date Analyzed	200.7	0.0050 U 06/06/00	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL		<u>TMW-10</u>	<u>Units</u>
Hydrocarbons (C8	-C40)	0.20 Ŭ	mg/L
Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 90 06/06/00 06/07/00	<u>LIMITS</u> 65-140

 $[\]mathtt{U} = \mathtt{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11582 DATE REPORTED: June 12, 2000
REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 20 OF 42

EPA METHOD 601 -		
VOLATILE HALOCARBONS	<u>TMW-11</u>	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethane Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 1.0 U	
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 90 06/06/00	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582 DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 21 OF 42

EPA METHOD 602 -		
VOLATILE AROMATICS	TMW-11	Units

Methyl tert-butyl ether	2.0 U	μg/L
Benzene	1.0 U	μg/L
Toluene	1.0 U	μg/L
Chlorobenzene	1.0 U	μg/L
Ethylbenzene	1.0 U	μg/L
m-Xylene & p-Xylene	1.0 U	μg/L
o-Xylene	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate:	% RECOV	LIMITS
Bromofluorobenzene	109	59-132
Date Analyzed	06/06/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 22 OF 42

EPA METHOD 8310 - PAH BY HPLC	TMW-11	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	— ду/ L L L L L L L L L L L L L L L L L L L
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 108 06/06/00 06/08/00	LIMITS 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>TMW-11</u>	<u>Units</u>
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

 $[\]mathbb{U}$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582 DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 23 OF 42

TOTAL METALS	METHOD	<u>TMW-11</u>	Units
Lead Date Analyzed	200.7	0.0050 U 06/06/00	mg/L
EPA METHOD FLPRO		TMW-11	<u>Units</u>
Hydrocarbons (C8	-C40)	0.20 U	mg/L
Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 59 06/06/00 06/07/00	<u>LIMITS</u> 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 24 OF 42

EPA METHOD 601 -		
VOLATILE HALOCARBONS	<u>TMW-12</u>	Units
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethane Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethane 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 2.0 U 1.0 U 1.0 U 1.0 U 2.0 U 2.0 U 1.0 U	руба руба
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 69 06/07/00	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 25 OF 42

EPA METHOD 602 - VOLATILE AROMATICS	<u>TMW-12</u>	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 97 06/07/00	<u>LIMITS</u> 59-132

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 26 OF 42

EPA METHOD 8310 - PAH BY HPLC	<u>TMW-12</u>	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	μασης μ
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 107 06/06/00 06/08/00	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>TMW-12</u>	<u>Units</u>
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 27 OF 42

TOTAL METALS	METHOD	TMW-12	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 06/06/00	mg/L
EPA METHOD FLPRO PETROL. RESIDUAL	- ORG.	<u>TMW-12</u>	Units
Hydrocarbons (C8-0	C40)	0.20 U	mg/L
Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 68 06/06/00 06/07/00	<u>LIMITS</u> 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 28 OF 42

EPA METHOD 601 - VOLATILE HALOCARBONS	<u>TMW-13</u>	Units
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane I,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethane Trichloroethane trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 1.0 U	ид/LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 91 06/06/00	LIMITS 37-161

 $[\]mathtt{U} = \mathtt{Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 29 OF 42

EPA METHOD 602 -		
VOLATILE AROMATICS	TMW-13	Units
Methyl tert-butyl ether	2.0 U	μ g/L
Benzene	1.0 U	μ g/L
Toluene	1.0 U	μ g/L \cdot
Chlorobenzene	1.0 U	μg/L
Ethylbenzene	1.0 U	μg/L
m-Xylene & p-Xylene	1.0 U	μg/L
o-Xylene	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate:	% RECOV_	LIMITS
Bromofluorobenzene	116	59-132
Date Analyzed	06/06/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000
REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 30 OF 42

■EPA METHOD 8310 -		
PAH BY HPLC	TMW-13	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	0.50 U 1.0 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 0.10 U	Units µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L µgg/L
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 105 06/06/00 06/08/00	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	TMW-13	Units

ETHYLENE DIBROMIDE	<u>TMW-13</u>	Units
Ethylene Dibromide Date Extracted	0.020 U 06/06/00	μg/L
Date Analyzed	06/06/00	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 31 OF 42

TOTAL METALS	METHOD	<u>TMW-13</u>	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 06/06/00	mg/L
EPA METHOD FLPRO		TMW-13	Units
Hydrocarbons (C8		0.20 U	mg/L
Surrogate: p-Terphenyl Date Extracted Date Analyzed		<pre>% RECOV 85 06/06/00 06/07/00</pre>	<u>LIMITS</u> 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 32 OF 42

EPA METHOD 601 - VOLATILE HALOCARBONS	LAB BLANK	Units
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene t,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 2.0 U 1.0 U	μα/LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 100 06/03/00	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 33 OF 42

RESULTS OF ANALYSIS

EPA METHOD 602 -

VOLATILE AROMATICS	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene b-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 131 06/03/00	<u>LIMITS</u> 59-132
EPA METHOD 8021 - VOLATILE ORGANICS	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 1.0 U 1.0 U 1.0 U	μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg μg/Kg
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 89 06/04/00	LIMITS 28-165

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339
PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 34 OF 42

EPA METHOD 8310 -		
PAH BY HPLC	LAB BLANK	<u> Units</u>
Naphthalene	0.50 U	μg/L
Acenaphthylene	1.0 U	μ g/L
1-Methylnaphthalene	1.0 U	μg/L
2-Methylnaphthalene	1.0 U	μg/L
Acenaphthene	0.50 U	μg/L
Fluorene	0.10 U	μg/L
Phenanthrene	1.0 U	$\mu g/L$
Anthracene	0.20 U	μ g/L
Fluoranthene	0.10 U	μ g/L
Pyrene	0.10 U	μ g/L
Benzo(a) anthracene	0.10 U	μg/L
Chrysene	0.10 U	$\mu g/L$
Benzo(b) fluoranthene	0.10 U	μ g/L
Benzo(k)fluoranthene	0.10 U	μ g/L
Benzo(a)pyrene	0.10 U	μg/L
Dibenzo(a,h)anthracene	0.10 U	μ g/L
Benzo(g,h,i)perylene	0.10 U	μg/L
Indeno(1,2,3-cd)pyrene	0.10 U	μ g/L
Surrogate:	% RECOV_	LIMITS
p-terphenyl	104	43-148
Date Extracted	06/06/00	
Date Analyzed	06/07/00	

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 35 OF 42

EPA METHOD 8310 - PAH BY HPLC	LAB BLANK	Units
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a) pyrene Dibenzo(a,h) anthracene Benzo(g,h,i) perylene Indeno(1,2,3-cd) pyrene	16 U 33 U 33 U 16 U 3.3 U 3.3 U 6.6 U 3.3 U 3.3 U 9.9 U 3.3 U	μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα μα/κα
Surrogate: p-terphenyl Date Extracted Date Analyzed	% RECOV 90 06/07/00 06/09/00	LIMITS 39-141
EPA METHOD 504 - ETHYLENE DIBROMIDE	LAB BLANK	<u>Units</u>
Ethylene Dibromide Date Extracted Date Analyzed	0.020 U 06/06/00 06/06/00	μg/L .

 $_{\parallel}U$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582
DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 36 OF 42

TOTAL METALS	METHOD	LAB BLANK	Units
Lead Date Analyzed	200.7	0.0050 U 06/06/00	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL O		LAB BLANK	Units
Hydrocarbons (C8-C	MARIN PROVIDE TO THE	0.20 U	mg/L
Surrogate: o-Terphenyl Date Extracted Date Analyzed		% RECOV 75 06/06/00 06/07/00	<u>LIMITS</u> 65-140
EPA METHOD FLPRO - PETROL. RESIDUAL O	PRG.	<u>LAB</u> BLANK 6.6 U	<u>Units</u> mg/Kg
Surrogate: O-Terphenyl Date Extracted Date Analyzed	· · · · · · · · · · · · · · · · · · ·	% RECOV 99 06/07/00 06/08/00	LIMITS 51-148
ġ			

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582 DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 37 OF 42

EPA METHOD 601 -		
VOLATILE HALOCARBONS	LAB BLANK	Units
	LAB BLANK 1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 2.0 U 1.0 U 2.0 U 1.0 U	Units #g/L #g/L #g/L #g/L #g/L #g/L #g/L #g/
Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene	1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L
1,2-Dichlorobenzene	1.0 U	μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 99 06/06/00	<u>LIMITS</u> 37-161

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

DATE REPORTED: Game 12,
REFERENCE : 2339
PROJECT NAME : Mayport Naval Station
Tank #203

PAGE 38 OF 42

EPA METHOD 602 -		
VOLATILE AROMATICS	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether	2.0 U	μg/L
Benzene	1.0 U	μ g/L
Toluene	1.0 U	μ g/L
Chlorobenzene	1.0 U	μg/L
Ethylbenzene	1.0 U	μg/L
m-Xylene & p-Xylene	1.0 U	μ g/L
o-Xylene	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	μ g/L
1,2-Dichlorobenzene	1.0 U	μ g/L
Surrogate:	% RECOV_	LIMITS
Bromofluorobenzene	115	59-132
Date Analyzed	06/06/00	

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station

Tank #203

PAGE 39 OF 42

EPA METHOD 601 - VOLATILE HALOCARBONS	LAB BLANK	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethene 1,1-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloropropane Bromodichloromethane Trichloroethene 1,2-Dichloropropene t-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 2.0 U 1.0 U 1.0 U 2.0 U 2.0 U 2.0 U 1.0 U	мимимимимимимимимимимимимимимимимимими
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 76 06/07/00	<u>LIMITS</u> 37-161

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000
REFERENCE: 2339
PROJECT NAME: Mayport Naval Station

Tank #203

PAGE 40 OF 42

EPA METHOD 602 - VOLATILE AROMATICS	LAB BLANK	Units
Methyl tert-butyl ether Benzene	2.0 U 1.0 U	μg/L μg/L
Toluene	1.0 U	μ g/L
Chlorobenzene Ethylbenzene	1.0 U 1.0 U	μg/L μg/L
m-Xylene & p-Xylene	1.0 U 1.0 U	μg/L μg/L
o-Xylene 1,3-Dichlorobenzene	1.0 U	μg/L
1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 1.0 U	μg/L μg/L
1,2-biciiolobenzene		, -
Surrogate: Bromofluorobenzene	% RECOV 115	<u>LIMITS</u> 59-132
Date Analyzed	06/07/00	

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 41 OF 42

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 601 Methylene Chloride Chloroform Carbon Tetrachloride Trichloroethene Tetrachloroethene Chlorobenzene	120/ 89/102	51-155	30	29
	129/ 97/107	63-145	28	16
	137/ 89/116	64-146	42	21
	125/ 86/ 98	60-140	37	24
	115/ 88/109	66-146	27	21
	121/101/113	70-137	18	19
EPA Method 602 Benzene Toluene Ethylbenzene o-Xylene EPA Method 8021	116/ 91/ 97	60-138	24	17
	121/112/128	57-138	8	16
	125/116/128	49-144	7	17
	122/112/121	50-151	8	17
Benzene Toluene Ethylbenzene o-Xylene	80/ 76/ 79	59-144	5	25
	82/ 73/ 77	67-132	12	58
	72/ 71/ 74	60-169	1	28
	82/ 77/ 81	62-183	6	24
EPA Method 8310 Naphthalene Acenaphthene Benzo(a)pyrene Benzo(g,h,i)perylene	81/ 77/ 69	59-111	5	12
	98/ 93/ 78	58-128	5	13
	111/101/ 90	78-134	9	15
	100/ 91/ 84	62-115	9	30

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than
MS = Matrix Spike</pre>

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

REPORT # : JAX11582

DATE REPORTED: June 12, 2000

REFERENCE : 2339

PROJECT NAME : Mayport Naval Station

Tank #203

PAGE 42 OF 42

QUALITY CONTROL DATA

<u>Parameter</u>	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 8310 Naphthalene Acenaphthene Benzo(a)pyrene Benzo(g,h,i)perylene	80/ 83/ 77 91/ 95/ 86 91/ 93/ 79 96/101/ 85	48-130 36-127 64-141 58-168	4 4 2 5	20 17 22 21
EPA Method 504 Ethylene Dibromide	120/110/112	58-135	9	22
TOTAL METALS Lead, 200.7	105/104/106	68-126	<1	19
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	81/ 81/ 79	51-163	<1	27
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	88/ 89/ 84	62-204	1	25

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Parx Court, Suite 211 10207 General Drive Jacksonville, Florida 32216-6069 Orlando, Florida 3282

Jacksonville, Florida 32216-6069 Orlando, Florida 32824
Ph. (904) 296-3007 • Fax (904) 296-6210 Ph. (407) 826-5314 • Fax (407) 850-6945
ENCO CompQAP No.: 950038G/0

2x1000 Just Chia. YIP 2x You Ving (wwo) (406, 1 Appendigher (we) PA X AW; 2x tan I mys are down An Dahedo. 1× 1026/102/104 noly (Holos) CHAIN OF CUSTODY RECORD 3×59m Edente Smile Contracted Spales Symplus April 20 Welled to Ence 32x (ED) 8/1/00 EXPEDITED REPORT DELIVERY (surcharge) STANDARD REPORT DELIVERY TIME Q. EACH SAMPLE 8465 DATE xson PAGE Cate Due: 01-14 3 2 REQUIRED ANALYSIS ERS SUBMITTED RECEIVED BY. (SIGNATURE) ž TIME 0158 3 DATE REMARKS MATRIX TYPE RELINGUISTED BY COLOMATURES AND DE ENCO LOG NO RELINQUISHED BY: (SIGNATURE) OND CUST/DOY INTACT Flacion37733 O. NUMBER RECEIVED BY SAMPLE IDENTIFICATION 10 -10 21-MM) 11/10 / 13 CMW S 11-MM 6-50 3-10 18:40 12/15 18:40 52-1 X820 TEME TEME Attor the Barch 00/ 00/1/2 DATE TIME STATES DATE Kleavery, love SNATURE) 10,70 10,56 12:55 833 0:01 13:55 15:45 5:05 DORLANDO EIVED FOR LABORATORY BY (S) Ley Karo, SANPLE INQUISHED BY: (SIGNATURE) 14 year struck 8 00 ુ 0 PLE KIT PREPARED BY. VIRONMENTA Avey by (spangy) G-dacksonville CKSONVILLE - Molley NT NAME 2 7 7% 5

ATTACHMENT B

Well Sampling Field Logs

Well Sampling Log They for Ful From - 7 ml #203 Project Number: 62/=2339 Site Location: Well I.D. TAW - P1 Depth of well (from TOC) 8,10 ft Depth to water 5.97 Well Type: __upgradient __downgradient __hot spot Longitude _____ Latitude ____ Purge Information: Purging eqpt: Per stalt ? Purge rate: 07 gal/min. Purge Start Time: 13:56 Well Recharge Rate: (601) Volume Gallons pН Conductivity Temp. (°C) Time Other 5.0 Field Parameters 7,31 Total gallons purged: ا منازع Purge Stop Time: 15 Sample Information: Sample Collection Time: 14:10 Sample Collected Using: Tell. Order of Sampling 1 2 3 Sample Parameters 6 5-7 Sample Containers pH of Preserved Samples Additional Preservative Product noted: None Odor noted: Men Color: Masky Char Turbidity: podul-Field Instrument Information: Calibration: pH 4.0 _____ 7.0 __ _ 10.0 ____ Conducti y: ____ Time/Date; Ambient Conditions: Wasse Field Personnel (name/title): Sample delivered to laboratory by:

Well I.D	_upgradient	Depth of well Top of Casing Tell Construct al Well Vo H=downgrac	(from g (TOC) ion	TOC) <u>//</u>) <u>ft. ii</u> <u>パス</u> /H × D - 名に	1. slotter	Project 1 203 ft I ft Static 1 screen /r² × 0.163 W= 2	Depth Wate Casin S= ft	to water er Level ng Material	6,37
Longitude Purge Informati Purging eqpt: _ Purge Start Tirr	Latification: 14:39	Rude			Purge r Well R	ate: <u>0,</u> echarge R	て late:	gal/mir	
Volume	Gallons	pН		onductivit				Time	Other
1	-5				1	<u></u>			
7	1,0		0	ar jul	tu				
5	1.5		1		10	シー つ			
	2.0		e de	3					
1	7-5								
									
Field Par	ameters	1714		745	17	5.6			
Purge Stop Time				<u> </u>	Total		rged:	<u> </u>	
Sample Informate Sample Collection		- < \ _			Sampl	e Collecte	d Us	ing: <u> </u>	B. (2
Order of Samp	ling	1	2		3	4		5	6
Sample Parame	ters	602	60 B	2 1	/ 5	F/ 2;	6	x 200.	
	ners	Zx 40.2	2 x 4	3 To	~00 L	1 ~	2 C	14 562.6	
Sample Contain),U	17	55	- 1967 - 1960 -	
	d Samples	4/5	1 1 /	-	7 A.Z	. F → > >	1	FACE	
Sample Contain pH of Preserve Additional Pres		HC.	<u> </u>		, , -		<i>'</i>	. 7	

.

Z.

Well Volume	an Sed Level: 1	ell Construct Well Vo H= 1	(from the state of	om TOC) / OC) ft. ir 1.4 /H × /TD - 5.6	n. s	th Static slotted screen $\frac{1}{1}$ /r ² × 0.16 $\frac{1}{1}$ /DTW= _/, $\frac{1}{1}$	Danel		-11
Longitude Purge Informat	14/150 VIW	ude	lient	•		urge rate:@	ر (Rate:	gal/m	162 in. 326
Volume	Gallons	pН		Conductivity	у	Temp. (°C)		Time	Other
1	24					L			
7	0.8				اما) will			
3	1,2		4	gr of		س اولا	1		
4	1.6				7	> 7			
5	Z,0				1				
Purge Stop Time	rameters e: /5 47 tion: on Time: 15	9.70		44/5		76,0 Fotal gallons p	•		(a. 3)
Order of Samp	ling	1		2	3	3 4		5	6
Sample Parame	eters	602	3	DB 6	10	3 A1	0	me (C)	
Sample Contain	ners	ZX (g)	2				ترکد دہ مرب	3,3-2	4
pH of Preserve	d Samples	HCC		ر ارس	/	W HES		HUD	
Additional Pres	servative								
roduct noted: _	Nove	Odor noted:	_/	your	Cc	olor: Mass	Con.	Turbidity:	Modera
ield Instrument	d: 10 mation:	7600 (1. t	-/51	2 Courses	fil	F) W/Dir	2/	to sa st	C //

Well Sampling Log 14:20 Project Number: 2339 Time: Site Location: Tank # 203 Depth of well (from TOC) 7.51 Relative to Mean Sea Level: Top of Casing (TOC) ______ft Static Water Level Well Diameter 2 in Well Construction 5 ft persin slotted screen Casing Material puc Depth to water 5168 Well Vol= /TD - 5.68 /DTW = /83 ft

downgradient hot spot /TD - 5.68 /DTW = /83Well Type: ___upgradient Longitude _____Latitude ____ _ other Purge Information: Purging eqpt: Kustoff Purge rate: ______ gal/min. Purge Start Time: _ Well Recharge Rate: Sou to under Volume Gallons pН Conductivity Temp. (° A) Time Other 0.8 1.7 1.6 7.0 Field Parameters 703 Total gallons purged: Furge Stop Time: /7: 20 Sample Information: Sample Collection Time: 14:40 Sample Collected Using: Tedas Bala Order of Sampling 1 2 3 5 Sample Parameters 601/602 A4(2310) ED 6 Elfr Sample Containers ZXfox ex (eas) Ex (and al 3455 pH of Preserved Samples HU. 42504 Additional Preservative Product noted: Nove Odor noted: Nov Color: Grey Comments: Field instrument Information: Instruments Used: Oxion 4760 pt 430 Conorchet, W/ 476 mo Digitalian, Calibration: pH 4.0 7.0 10.0 Conduction: p: 177 Time/Date: 5/11/20 Ambient Conditions:
Field Personnel (name/title): Rulyan Money / Engage # Scientist Sample delivered to laboratory by: #\to

Well Sampling Log Project Number: Site Location: May fast ful FALL Well I.D. 100 Depth of well (from TOC) ft Depth to water Relative to Mean Sea Level: Top of Casing (TOC) _ft Static Water Level__ Well Diameter 2 in. Well Construction 5 ft proin. slotted screen Casing Material puc Well Volume ______ gal Well Vol= _____ /H × _____ /r^2 × 0.163= _____ gal/vol H= 7.12 /TD - 5.52 /DTW= 1.60 ft Well Type: __upgradient __downgradient __ hot spot __ Longitude _____ Latitude ____ Purge Information: Purging eqpt: Kustatic Pung Purge rate: _____ gal/min. Well Recharge Rate: Now to Moderate Purge Start Time: K:BZ Gallons pН Conductivity Temp. (°C) Time Volume Other 1,0 1,48 441 Field Parameters 27.0 Total gallons purged: 15 Sample Information: Sample Collected Using: Teder Bar la Sample Collection Time: 15:20 3 1 Order of Sampling A4(2310) Sample Parameters 601602 ED 6 Elfr Sample Containers 3455 pH of Preserved Samples 4,504 LINOS HCC UN Additional Preservative Product noted: NonE Odor noted: _____ Color: Gen Turbidity: K. Clary Why Comments: Field instrument Information: Calibration: pH 4.0 7.0 10.0 Conduction of: 14.00 Conduction of: 14.00 Time/Date: 5/31/00 14:15 Ambient Conditions: Field Personnel (name/title): ___

Sample delivered to laboratory by:

Well Sampling Log Project Number: 2337 Site Location: May lost me For Well I.D. Thu LPC Depth of well (from TOC) 7.36 ft Depth to water 5.54 Relative to Mean Sea Level: Top of Casing (TOC) _ft Static Water Level__ Well Diameter 2 in Well Construction 5 ft 8.870 in slotted screen Casing Material pvc Well Volume 0.3 gal Well Vol 1.81 $/H \times 1 / r^2 \times 0.163 = 0.3$ gal/vol /H = 7.35 / TD - 5.55 / DTW = 1.81 / ft__downgradient ___ hot spot _______ Well Type: ___upgradient Longitude _____ Latitude Purge Information: Purging eqpt: Kustofic Purge rate: 0.15 ___ gai/min. Purge Start Time: 1545 Well Recharge Rate: 500 Volume Gallons pН Conductivity Temp. (°C) Time Other 0.3 0.6 <u>0, 9</u> Field Parameters 7.27 26.8 Total gallons purged: 20 rurge Stop Time: ___/568 Sample Information: Sample Collection Time: /6:00 Sample Collected Using: Jeden Ba, la Order of Sampling 1 2 Sample Parameters 601/602 74(23/0) EDB El Pro ZXfor 1x (000) Sample Containers UK (and al 3455 pH of Preserved Samples Hec UN 4/200 Additional Preservative Product asted: None Color: world Clear Turbidity: (as to mide Odor noted: loininonis: wield instrument Information: Calibration: pH 4.0 7.0 10.0 Conduction 🛊 kublem Conditions: _ Field Personnei (name/title): _ Kulgan Money / En ra imple delivered to inboratory by:

Well Type:LongitudePurge Informat		Well Constr gal Well H=_ downg itude	Vol= 7. 20	7 ft./ /44 /TD -	<i>Per</i> oin. /H × 5.7 hot spot	slotte /DT	rate: 0.1	gal/n	ol puc
Volume	Gallons	T pH	[Condu	ctivity		Recharge Ra	te: Slow	7
/	0.26			2.25			np. (°C)	Time	Othe
2	0.40) we	y	· Van		
3	0.75			Parte		•			
y	1,0					***************************************			
5	1.25								
		İ							
		1	J	-					
Field Par Furge Stop Time	1635	1.47		45,8		-	Y	16:45	
Sample Informat Sample Collectic	e: _ [63	: Yo			T Si	otal g	callons purg	6:45 ed: 15	~ Br. li
Surge Stop Time Sample Informat Sample Collection Order of Sampl	e: 	: 40		2	T Si	otal g	collected.		- Brile
Purge Stop Time Sample Informat Sample Collectic Order of Sampl Sample Paramet	e: 	:40 1 601602 2×402	8	2	T Si	otal gample	Collected.	Using: Jed	i
Purge Stop Time Sample Informat Sample Collectic Order of Sampl Sample Paramet Sample Contain	ion: ing iers	:40 1 601602 2x402 vals	Est Zx v2	2 b for large	Si Si Si Si Si Si Si Si Si Si Si Si Si S	Cotal grample	Collected.	Using: Ted	i
Purge Stop Time Sample Informat Sample Collectic Order of Sampl Sample Paramet	ion: ion Time:	:40 1 601602 2×402	8	2 b for large	T Si	Cotal grample	Collected.	Using: Jed	i
Purge Stop Time Sample Informat Sample Collectic Order of Sampl Sample Paramet Sample Contain pH of Preserved	ion: ing ing ters ers Samples rvative	1 Col 602 2x for l Vals All Odor noted	EA, ZX.	2 b for sels	Si Si Si Si Si Si Si Si Si Si Si Si Si S	or: M	Collected. 4 Elfra Extended Junes 42504	Using: Ted	6 I

Date:	in Sea Level: '2in_ W	Top of Casin Yell Construct I Well V H= 7	g (TOC)	Popoin. s H ×	ft lotted s / /r² /DTW	n Dej Static W screen Cr × 0.163= = (,42	asing Material gal/v ft	j. Fa fi
Longitude Purge Informatio Purging eqpt: Purge Start Tim	Latit	ude		Pu	ırge rat	:e: <u>0</u>	(gal/n e: _ <i>Slow</i>	
Volume	Gallons	pH	Condu	ctivity	Temp	p. (°C)	Time	Other
/	0.3				:			
2	0.6				10 5			
3	0.9		77.15	W	Jel			
y	1,7		60.0					
5	1,6					• .		-
						·	Ç.	
Field Par	ameters	1.48	48	8	760	6	17:R	
Furge Stop Time Sample Informat Sample Collection Order of Samp	ion: on Time: 17:	15	2		-	alions purg Collected	Using: JeA	- Br. (4)
Sample Parame	ters	601602	806	744	9310)	Elfo	Pb	
Sample Contain	iers	Zxfort	Zxfort	941	000	EX(000		
pH of Preserve	d Samples	Her	VN	vn		42504	4/200	
Additional Pres	ervative							
Product noted: _ Comments: Field Instrument nstruments Usec	Information:	Odor noted	i: Na #130 Conour	· · · · · · · · · · · · · · · · · · ·		rey (den)		::#i : :

1 MW - 1 Change -1

Well Diameter Well Volume _ Well Type:	May for find An Sea Level: 2 in. W 9. gr upgradient Latit	Pepth of Well Top of Casing fell Construction H= downgrace	(from TOC) (TOC) on <u>f</u> ft. ol <u>7.78</u> / ol <u>7.78</u> / lient h	Peroin. slo H × _ \	ft otted s /r² DTW=	Static W creen C × 0.163=	Vater Lasing	evel	f
Purge Informati Purging eqpt: _		Pay				e: 0. charge Ra			
Volume	Gallons	pН	Condu	ctivity	Temp	. (°C)	Ti	me	Other
1	8,4				•				
2	0.8		1 a	\sim	5	Vola	~~		
3	1.7		17						
Y	(,6	·							
5	7,0								
	i	1				- 1			
	rameters	1,23	56		27			50	
Purge Stop Tim	e: 13143	1,23	56	To	otal ga	ıllons pur	ged: _	2.2	- Baile
Purge Stop Tim	e:	1, 23	2	To	otal ga	ıllons pur	ged: _	2.2	Las Brille
Purge Stop Tim Sample Informa Sample Collecti	e: 13143 tion: on Time: 13,14	1		To Sa	otal ga	ollected	ged: _	7.7 3: Tex 5 Ph	
Purge Stop Tim Sample Informa Sample Collecti Order of Samp	e: 13143 tion: on Time: 1314 pling eters	1 601 602 2x402	2 ED 6 Zxfoxl	Sa 3 AHG	otal ga	Collected 4 Ello	ged: _	2.7 3: TEA	
Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Parame	e: 13143 tion: on Time: 1314 pling eters ners	1 Colloo2 2xfool vals	2	To Sa	otal ga	Collected 4 Ello	ged: _	7.7 3: Tex 5 Ph	
Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Parame Sample Contai	e: 13143 tion: on Time: 1314 pling eters ners ed Samples	1 601 602 2x402	2 ED b Zxfol vrols	Sa Sa RH(S ex (con glas)	otal ga	Collected 4 Ello	ged: _	2.7 3: Tell 5 Ph 2500 P	
Purge Stop Tim Sample Informa Sample Collecti Order of Samp Sample Parame Sample Contai pH of Preserve Additional Preserve Comments:	e: 13143 tion: on Time: 1314 pling eters ners ed Samples servative t Information: ed: 02133	1 Colloo2 Zx Go.l Vals HCL Odor noted	ED & Zx for l vints vints	Sa Sa All (sa sus) M Co	otal ga	Collected 4 Elling Extens H2507	ged: _	2.7 S. Flat Solvery Landon Tarbidity	6 7: Hi

Well Sampling Log Project Number: ERI # 2339 Date: Tank # 203 Site Location: May lost free Face Well I.D. 4MJ-10 Depth of well (from TOC) 7.47 Depth to water 452 Relative to Mean Sea Level: Top of Casing (TOC)_ ft Static Water Level Well Diameter 2 in Well Construction 5 ft Deroin slotted screen Casing Material Puc Well Volume 0.46/4.5 gal Well Vol = 2.75 /H x / /r² x 0.163 = .48 gal/vol H= 1.41 /TD - 4.62 /DTW= 295 ft Well Type: __upgradient __downgradient __ _ hot spot Latitude _____ Longitude Purge Information: gal/min. Purging eqpt: Restaltic Page Purge rate: ___ Well Recharge Rate: Moderate Purge Start Time: __/3:08 pН Temp. (°C) Time Conductivity Other Gallons Volume Well 5 vole 1,0 1,7 10 ひく 518 Field Parameters Total gallons purged: Purge Stop Time: 4:20 Sample Information: Sample Collection Time: 14:30 Sample Collected Using: Jedan Brille 3 1 Order of Sampling A4(2310) Sample Parameters 601/602 Ella ED 6 1x (000 4 TX (and al Sample Containers 9455 pH of Preserved Samples HU NN w Additional Preservative Odor noted: _____ Color: Gry, au-Product noted: VW Comments: Field Instrument Information: Instruments Used: Oxio 4760 pt 14130 Construct; W/ 47C mo Digith Calibration: pH 4.0 7.0 10.0 Conductive y: 1472 Time Calibration: pH 4.0 Ambient Conditions: __ Field Personnel (name/title): _

Sample delivered to laboratory by: 472

	1_	es	Well S) Samplin	g Log	v	. 56	21 H -7770	
ate:	May lost Trul	Time:	14:40		P	roject Nu	imber: <u>U</u>	CH 2339	
ite Location!	May lost mil	ALL TANK	# 203	111		ft De	oth to wate	er 4.91	
/ell I.D. 3/N	in Sea Level: T	epin of Wen (110111 10C)_ /TOM	ecu	ft	Static W	ater Level	7.71	¹
(-11 D:	2 in We	II Construction	n 5 ft 62	proin s	offed so	reen C	asıng Mate	enal puc	
vell Volumeter	10.4 gal	l Well Vol	= /t	ix	/T	x 0.103=	0100 8	gal/vol	
		H = /	/(_/TD	7.71	/DTW=		I		
Vell Type:	_upgradient _	downgradi	ent he	ot spot		pace			oth
ongitude	Latiti	ide				/			
urge Informati	on:	•					_		
urging eqpt: _	on: Restaltie	lug				haras Par	te: <u>Slaw</u> \$	al/min.	
	Gallons	pH	Conduc			(°C)	Time		er
Volume		PIT	Conduc		11	7			
	0.4			0	rell	5			
2	0-6		- NUTCI	3 	7-1				
3	1.2		Λ		100				
y	16				•				
5	2.0								•
								-	
		•							
	<u> </u>	1 4/1	we	11	72	- 8			
•	rameters	241	55	7	Z7	: 8	raed: 7	25	
urge Stop Tim	ne: <u>14.02</u>	241	55				rged: _ 7 ,-		
urge Stop Tim	ne: <u>14.02</u>	4.41 	55						(i
urge Stop Tim	ne: <u>14.02</u>	441	55					Te der Ba	(in
Surge Stop Tim Sample Informa Sample Collect	ne: <u>15:02</u> ntion: ion Time: <u>1</u> 5	4.41 	2					TRAIN BAL	<u>(4</u>
Surge Stop Tim Sample Informa Sample Collect Order of Samp	ne: <u>13:02</u> ntion: ion Time: <u>\</u> S	1	<u> </u>		Sample 3	Collected 4	d Using: 5	TRAIN BAL	
Surge Stop Tim Sample Informa Sample Collect	ne: <u>13:02</u> ntion: ion Time: <u>\</u> S	1 601602	206	24	Sample 3 (2310)	Collected 4	d Using: 3	5 b	
Surge Stop Tim Sample Informa Sample Collect Order of Samp Sample Param	ne: 15.02 ntion: ion Time: \sqrt{5} pling neters	1 601/602 2x402	ED 6 Zxfozl	246 ext	Sample 3 23(0)	Collected 4	d Using: 3	5 b	
Sample Stop Tim Sample Informations Sample Collect Order of Sample Sample Param Sample Conta	ne: 15.02 ntion: ion Time: \square pling neters iners	1 boll 602 zx Goal vals	ED b Zelost vints	All oxi	Sample 3 (2310)	Collected 4 El fi Ex (***)	d Using: 3	5 b	
Purge Stop Tim Sample Informations Sample Collect Order of Sample Sample Param Sample Conta pH of Preserv	ne: 15.02 ntion: ion Time: \square pling neters iners ed Samples	1 601/602 2x402	ED 6 Zxfozl	246 ext	Sample 3 (2310)	Collected 4	d Using: 3	5 b	
Sample Stop Tim Sample Informations Sample Collect Order of Sample Sample Param Sample Conta	ne: 15.02 ntion: ion Time: \square pling neters iners ed Samples	1 boll 602 zx Goal vals	ED b Zelost vints	All oxi	Sample 3 (2310)	Collected 4 El fi Ex (***)	d Using: 3	5 b	
Purge Stop Tim Sample Informations Sample Collect Order of Sample Sample Param Sample Conta pH of Preserv	ne: 15.02 ntion: ion Time: 15 pling neters iners ed Samples eservative	1 601/602 2x402 vals 4ll	ED & Zx for l vrals	All oxi	Sample 3 23(0)	Collected 4 Elli	d Using: 3	5 b	
Purge Stop Tim Sample Information Sample Collect Order of Sample Sample Param Sample Conta pH of Preserv Additional Pre	ne: 15.02 ntion: ion Time: \square pling neters iners ed Samples eservative	1 boll 602 zx Goal vals	ED & Zx for l vrals	All oxi	Sample 3 (2310)	Collected 4 Elli	d Using: 3	5 b	
Purge Stop Time Sample Information Sample Collect Order of Sample Sample Parame Sample Conta pH of Preserv Additional Preserv Product noted: Comments:	ne: 15.02 ntion: ion Time: 5 pling neters iners ed Samples eservative	1 601/602 2x402 vals 4ll	ED & Zx for l vrals	All oxi	Sample 3 23(0)	Collected 4 Elli	d Using: 3	5 b	
Purge Stop Time Sample Information Sample Collect Order of Sample Sample Parame Sample Conta pH of Preserv Additional Preserv Product noted: Comments: Field Instrument	ne: 15.02 ntion: ion Time: 15 pling neters iners ed Samples eservative None nt Information:	1 601/602 2x40.1 vinls 4ll Odor noted	ED & Zxforl vrals vrals	All oxi	Sample 3 23(a) Color: (Collected 4 E/ P/ Ex (00) glass 42507	d Using:	5 b	
Purge Stop Tim Sample Information Sample Collect Order of Sample Param Sample Param Sample Conta pH of Preserv Additional Pre Product noted: Comments: Field Instruments Us	ne: 15.02 ntion: ion Time: 15 pling neters iners ed Samples eservative None nt Information: ed: Oxion	1 Collor Noted	ED & Zxforl vrals vrals vn 4 (30 Conour	All oxi	Sample 3 23(a) Color: (Collected 4 Elli	d Using: 3	bidity: H	6
Purge Stop Time Sample Information Sample Collect Order of Sample Sample Parame Sample Parame Sample Conta pH of Preserv Additional Preserv Additional Preserv Comments: Field Instruments Us Calibration: pl	ne: 15.02 ntion: ion Time: 15 pling neters iners ed Samples eservative None nt Information: ed: 02.00 H 4.0	1 601/602 2x40.1 vinls 4ll Odor noted	ED & Zxforl vrals vrals	All oxi	Sample 3 23(a) Color: (Collected 4 E/ P/ Ex (00) glass 42507	d Using: 3	5 b	6
Purge Stop Time Sample Information Sample Collect Order of Sample Sample Param Sample Param Sample Conta pH of Preserv Additional Preserv Additional Preserv Comments: Field Instrumer Instruments Us Calibration: pl Ambient Cond	ne: 15.02 ntion: ion Time: 5 pling neters iners ed Samples eservative None nt Information: ed: 02.00 itions: 10.00	1 601/602 2x40.1 vinls 4ll Odor noted	ED & Zxforl vrals vrals vn 4 (30 Conour	Mather State of Concerns	Sample 3 2310) Color: (U/ Juctir NAO	Collected 4 E/ P/ Ex (00) glass 42507	d Using: 3	bidity: H	6
Purge Stop Time Sample Information Sample Collect Order of Sample Sample Param Sample Param Sample Conta pH of Preserv Additional Preserv Additional Preserv Comments: Field Instrumer Instruments Us Calibration: pl Ambient Cond	ne: 15.02 ntion: ion Time: 15 pling neters iners ed Samples eservative None nt Information: ed: 02.00 H 4.0	1 601/602 2x40.1 vinls 4ll Odor noted	ED & Zxforl vrals vrals vn 4 (30 Conour	All oxi	Sample 3 2310) Color: (U/ Juctir NAO	Collected 4 E/ P/ Ex (00) glass 42507	d Using: 3	bidity: H	6

ESO Well Sampling Log

Date: (a)		Time:	16:15	——	ng Log P	roject N	umbe	er: Ell	2339
Site Location:	Mayor De		1			ft De	enth f	O water	449
Dalativa to Mas	in Sea Level: Ti	on of Casing (TOCI		II	Static v	y ater	Level	f.
Well Diameter	U in We	Il Construction	n's flusho	r in. s	slotted so	creen C	Casin	Material	DITC
Well Volume	9-5 gal	Well Vol=	= <u>7.99/H</u> ,	×	/r²	× 0.163=	-0	9 gal/v	ol ,
		$H = \frac{7.40}{}$	_/TD - 4	49	/DTW=	· <u>299</u>	_ ft		
Well Type:	_upgradient _	downgradie	ent ho	t spot					other
Longitude	Latitu	de							•
Longitude Purge Informati Purging eqpt:	"Devalo	i Pur		Pı	urge rate	e: 0,	15	gal/m	in.
Purge Start Tim	1	22						nevatu	
Volume	Gallon	pН	Conduct	ivity	Temp	. (°C)		Time	Other
	0,5								
7	1.0			\\					
3	(,5		pm	<u> 7 </u>			·		
٧.	2.0		1/0	2	1,01				
					,		***************************************		
	Li								
Field Pa	rameters	7.46	86	/	28	.0	1/5	-50	
Purge Stop Tim	e: 1547				Total ga	allons pu	rged:	-2.6-	
Sample Informa	tion: on Time: <u>人</u> ない	.			Sample	Collecte	d Us	ing: Tell	- Bali
		1		T		<u> </u>			1
Order of Samp	oling	1	2		3	4		5	6
Sample Param	eters	601/602	EDB		310	F/F	ro -	less	
Sample Contain	iners	Visit !	Vints	14	(000-1)	2×100	5	12 500	
pH of Preserve	ed Samples	Ha	UN	J	~	425	9	16003	
Additional Pre	servative						<i>,</i>		
Product noted:	New	Odor noted:	1/04	(Color: 💪	va Cher	J41	Purbidit	v: <i>H</i> '
Comments:	₩ 5/ 3 €	_ Odor noted.			30.01. (4	=			
Field Instrumen		. 1		•	(1	1		20 /	D
Instruments Use		6760 pt	# 130 CE	no an	My.	WI AT		The Salve	ate: 6/1/00 12:
Calibration: pF		7.0	(0.0	Cond	7 . 2	J. 44/	<u> </u>	I IIIIC/Da	ile. 9/1/.00
Ambient Condi- Field Personnel		(P)	Monto	1 1	14 11	1 Sc	et	ist	-
1 ICIG 1 CISOIBICI	.(arro, mio)	7 ~~~~	V \]					
			()		· · · · · · · · · · · · · · · · · · ·				
Sample delivere	ed to laboratory	by: _tall	WW					17% the to-commence of	

_		e	od well	Sampling 1	CEAT		
Date:	011/00	-Fime:	1955	9-	Project Nur	nber: EN	2359
Site Location:		MI SW	m fruit	Far	,	_	
Well I.D. TM	on Con Lauri	Depth of well	and an			th to water_	48 1
Relative to Me	an Sea Leven.			0.0.0	_ft Static Wa	ter Level	fi
Well Volume		yell Construction Well V	tion but.	2. 40n. slotte	_ft Static Wa ed screen Cas /r² x 0.163=	ing Material	ar
wen voimie_		ta	rion 6 ft. ol- 770 -	1200 - L	, /- ^ .U. <u></u>	0.39 gal/v	ol ol
Well Type:	upgradient	qownara	dient 1	hot spot	W= 2.00 f		
Longitude	Lati	itude _	<u> </u>	not spot	·	1	other
Purge Informati	ion I M.	0		•	56	ly 1.47	
Purging eqpt: _ Purge Start Tim	16: 70 21 MADE	tup		Purge Well 1	rate: <u>0. (5</u> Recharge Rate:	gal/m	in.
Volume	Gallons	pН	Condu	1.	mp. (°C)	Time	Other
(. 4				1	·	
2	08		1 (10	11 1/2	~~	
	NID			Tuel	5 0 0		
.3			hunger				
1 4	4.6.	·					
	2.6		<u> </u>				
		1 11/2					
Field Par		1,48	155	1 20	5.4		
Purge Stop Time				Total	gallons purged	1: _22	
Sample Informat Sample Collection		<u>L'Ó</u>		Samp	le Collected U	sing: Tell	ngul
Order of Sampl	ling	1	2	3	4	5	
Sample Parame		601/693	€0K		of Pro	86	6
Sample Contain	ners	2+40	Extool	1×10021	Excess	125000	
pH of Preserved	d Samples	400	Vinls	gloss	11-50	24	
Additional Prese	ervative				1109	HOURS	
Product noted:	Monta	_ Odor noted:	ande	Colore	Con Flax.		1 1.
Comments:	140:00	_ Odor noted.	, -10-0	Color: \	Sray Cleary	Turbidity:	Modera
Field Instrument			·	11	ME LINGE	Λ	
Instruments Used	: Orion to	260 p4:#1	30 Condr	Aty W/	Ltc.+Dunt	Tu	,
Calibration: pH		122	10.0	Conducti	1: 47 V	Time/Date	6/1/00 12:1
Ambient Condition Field Personnel (1		. / 11 / 114	mmy class	WAYD.	9 5 710 NE		
ricia Letzoiniei (i	name/me):		any -	ymayy ?	Jan VII		
		JAy New	~ J Y	my ?	Aldmill		<u> </u>
Sample delivered	to laboratory	by. the	- N 1.	\			-
			2) Jeve	4			

LIMITED TANK CLOSURE REPORT ABOVEGROUND STORAGE TANK NO. 204 RELIABLE MECHANICAL JOB MAYPORT NAVAL STATION MAYPORT, FLORIDA



LIMITED TANK CLOSURE REPORT ABOVEGROUND STORAGE TANK NO. 204 RELIABLE MECHANICAL JOB MAYPORT NAVAL STATION MAYPORT, FLORIDA

PREPARED FOR:

Environmental Recovery Group, Inc. 251 Levy Road Atlantic Beach, Florida 32233-0569 ERG Job Number 3369

PREPARED BY:

Aerostar Environmental Services, Inc. 11200 St. Johns Industrial Parkway, Suite 1 Jacksonville, Florida 32246 (904) 565-2820

Protosamentos	REC	CE	Cl	VE	D
ПРИОМИТЕРИОМ	JAN	0	8	2002	
Breakmonoconscuto	BY:		**********		

Sihard S. Mt	10/1	6/01
Richard D. McCann, Project Manager		Date

Leon J. Carrero, P.G.; Manager, Environmental Services

/0/16/0/
Date of the Control of the Cont

TABLE OF CONTENTS

SECTION	PAGE
1.0 INTROD	UCTION
2.0 STORAG	E TANK REMOVAL PROCEDURES
3.0 ENVIRO	NMENTAL MONITORING ACTIVITIES
4.0 RECOMP	MENDATIONS
	TABLES
TABLE 1 TABLE 2 TABLE 3 TABLE 4	Soil Screening Summary Soil Analytical Summary Temporary Well Construction Details Groundwater Laboratory Analytical Summary
***************************************	FIGURES
FIGURE 1 FIGURE 2	Topographic Site Location Map Site Plan and Sampling Locations
**************************************	APPENDICES
APPENDIX A APPENDIX B APPENDIX C APPENDIX D	Limited Closure Summary Report Storage Tank Facility Registration Form Photographic Documentation Laboratory Analytical Reports

1.0 INTRODUCTION

Aerostar Environmental Services, Inc. (AEROSTAR) provided environmental services during closure of an aboveground storage tank (AST) system (hereafter referred to as Tank #204), located at the Mayport Naval Station, Mayport, Duval County, Florida, Florida Department of Environmental Protection (FDEP) facility ID #168626008; hereafter referred to as the site. According to Navy records, the AST was used to store diesel fuel. A topographic map showing the location of the site is included as Figure 1. Demolition and AST closure activities were conducted by Realco Wrecking and Recycling under the management of Reliable Mechanical, Inc. (RMI) of Louisville, Kentucky. Environmental assessment activities were conducted by AEROSTAR personnel in accordance with the guidelines established in the Storage Tank System Closure Assessment Requirements and following closure specifications provided by RMI. Based on the results of this investigation, further assessment is recommended for the area of the former AST system. The following sections present the AST system location and description, closure procedures and results of the environmental monitoring activities.

2.0 STORAGE TANK REMOVAL PROCEDURES

The former AST system was located approximately 350 feet south of the St. Johns River on the Mayport Naval Station, and consisted of a 1.5 million gallon steel tank containing diesel fuel. The AST was constructed of welded steel sheets and placed on a one-foot thick round concrete pad, approximately 100 feet in diameter. Information obtained by AEROSTAR from the Navy indicated that the AST was installed in 1964. A site plan showing the location of the former AST system is included as Figure 2.

The AST system was removed between August 14 and August 15, 2001 by Realco Recycling and Wrecking Company, a subcontractor to RMI. Prior to demolition, the remaining contents of Tank #204 were transferred to another tank located at the site. The interior of the tank was cleaned by Environmental Recovery Group, Inc. (ERG). The rinse water was transported by ERG to Waste Recovery, Incorporated (WRI) in Jacksonville, Florida for proper disposal. The steel roof and walls of the tank were demolished and properly disposed of, leaving only the steel tank bottom (approximately 0.5-inches thick) and the one-foot thick concrete pad. Copies of the Limited Closure

Summary Report and the Storage Tank Facility Registration Form are included in Appendices A and B, respectively. Photographic documentation of the site conditions during soil and groundwater sampling activities is included in Appendix C.

3.0 ENVIRONMENTAL MONITORING ACTIVITIES

On August 16 and August 17, 2001, soil borings PB-1 through PB-8 were advanced around the perimeter of the former AST. On August 17, 2001, additional soil borings TB-1 through TB-5 were advanced through the concrete pad to further evaluate soil quality. Soil samples were collected during boring advancement at one-foot intervals from approximately one foot below land surface (BLS) to approximately four feet BLS using a three-inch diameter, stainless steel hand auger. The soil samples from the perimeter borings PB-1 through PB-8 were screened with a calibrated portable Heath Tech Porta-FID IIITM Organic Vapor Analyzer with a Flame Ionization Detector (OVA-FID). Each sample was also screened with a charcoal filter to differentiate the instrument's response to naturally occurring methane vapors. The difference between the readings is the vapor concentration attributed to petroleum hydrocarbons. In addition to the OVA-FID screening, each sample was inspected for signs of hydrocarbon staining and unusual odors. All soil samples collected from the tank bottom borings TB-1 through TB-5 were saturated and therefore were not field screened for organic vapors. Soil sample collection and screening activities were conducted in accordance with AEROSTAR's FDEP-approved Comprehensive Quality Assurance Project Plan (ComQAPP) #940023G.

Hydrocarbon vapors were detected above the State target level of 10 parts per million (ppm), established as a "positive field screening result" in Chapter 62-770, Florida Administrative Code (FAC). Maximum vapor concentrations detected in soil samples collected from the vadose zone ranged from 12 ppm to 1660 ppm. Results of the soil vapor screening are included in Table 1. The soil sample locations are shown in Figure 2.

Soil samples exhibiting the highest OVA responses from each borehole were collected for laboratory analyses. A soil sample was collected for laboratory analyses from each boring location with no "positive field screening result." The sample was collected approximately one foot above the static

water table. The samples were submitted to Environmental Conservation Laboratories, Inc. (Enco) in Jacksonville, Florida for analyses of the parameters listed in EPA Method 8260 for Volatile Organic Aromatics (VOAs), EPA Method 8310 for Polynuclear Aromatic Hydrocarbons (PAHs), and Total Recoverable Petroleum Hydrocarbons (TRPHs) by the FL-PRO Method. Soil sampling activities were conducted in accordance with AEROSTAR's FDEP-approved ComQAPP #940023G.

Results of the soil laboratory analyses indicated TRPH concentrations above State Cleanup Target Levels (SCTLs) in soil samples collected from the area of the former AST. Soil analytical results are summarized in Table 2. The laboratory analytical reports are included in Appendix D.

On August 16 and August 17, 2001, thirteen temporary wells (PB-1 through PB-8 and TB-1 through TB-5) were installed at the locations of the soil borings, as shown in Figure 2. The temporary wells were installed approximately eight feet BLS using a three-inch diameter, stainless steel hand auger. The water table surface was encountered at approximately 4.5 feet BLS during the assessment activities. The temporary well construction details are summarized in Table 3.

Groundwater samples were collected from the temporary wells for analyses of the parameters listed in EPA Method 601 for Volatile Organic Hydrocarbons (VOHs), EPA Method 602 for VOAs, EPA Method 610 for PAHs, EPA Method 504 for Ethylene Dibromide, TRPH by the FL-PRO Method, and EPA Method 200.7 for Total Lead by the quiescent sampling method using an adjustable-flow peristaltic pump to minimize sample turbidity. The remaining samples were collected using disposable bailers after purging each well of five well volumes to ensure representative samples of actual aquifer conditions. Groundwater sampling activities were conducted in accordance with AEROSTAR's FDEP-approved ComQAPP #940023G.

Results of the groundwater analyses showed hydrocarbons concentrations above SCTLs in the samples collected in the area of the AST. Groundwater analytical results with corresponding State target levels are summarized in Table 4. Laboratory analytical reports are included in Appendix D.

4.0 RECOMMENDATIONS

Hydrocarbon concentrations were detected above the State target levels established in Chapter 62-777, FAC, in the groundwater and soil samples collected for this investigation. Based on the results of the tank closure, further assessment activities are recommended for the area of the former AST.

TABLES

TABLE 1: SOIL SCREENING SUMMARY

Facility Name: Mayport AST Closure /Tank #204 Facility ID No: 168626008

	SAMPLE			OVA SC	REENING RE	SULTS	
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (FBLS)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	COMMENTS
TB-1	8/17/01	~0.5	1	NS	NS	NS	TB-1 = Tank Bottom Sampling Location 1
			2	NS	NS	NS	
			3	NS	NS	NS	
TB-2	8/17/01	~0.5	11	NS	NS	NS	Concrete Bottom ~16-in. Thick
			2	NS	NS	NS	
			3	NS	NS	NS	
TB-3	8/17/01	~0.5	1	NS	NS	NS	Concrete Bottom ~16-in. Thick
			2	NS	NS	NS	
			3	NS	NS	NS	
TB-4	8/17/01	~0.5	1	NS	NS	NS	Concrete Bottom ~16-in. Thick
			2	NS	NS	NS	
	!		3	NS	NS	NS	
TB-5	8/17/01	~0.5	1	NS	NS	NS	Concrete Bottom ~16-in. Thick
			2	NS	NS	NS	
**************************************			3	NS	NS	NS	
PB-1	8/16/01	~4.5	1	3	0	3	PB-1 = Perimeter Boring 1
			2	12	0	12	
			3	0	0	0	
	<u> </u>		4	0	0	0	
PB-2	8/16/01	~4.5	1	0	0	0	
	!		2	0	0	0	
			3	0	0	0	
			4	0	0	0	
PB-3	8/16/01	~4.5	1	0	0	0	
	:		2	0	0	0	
			3	0	0	0	
			4	0	0	0	
PB-4	8/16/01	~4.5	1	0	0	0	
			2	0	0	0	
			3	0	0	0	
			4	2000	340	1660	
PB⋅5	8/16/01	~4.0	1	0	0	0	
			2	0	0	0	
			3	0	0	0	
PB-6	8/17/01	~4.0	1	0	0	U	
			2	0	0	0	
			3	0	0	0	
PB-7	8/17/01	~3.0	1	0	0	0	
			2	0	0	0	
			3	0	0	0	
PB-8	8/17/01	~3.0	1	0	0	0	
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2	0	0	0	
			3	0	0	0	

NS = Not Screened-All samples were saturated

TABLE 2: SOIL ANALYTICAL SUMMARY

Facility Name: Mayport Tank Closure/Tank #204

Facility ID Number: 168626008

_																					 	
		TRPH	(mg/kg)	340	2500	340	<8.0	<8.2	<8.0	<8.1	<8.1	<7.6	<8.8	350	5200	14	<7.8	<10	<7.2			
	2-Methyl-	napthalene	(mg/kg)	08	260	6.1	<0.040	<0.041	<0.040	<0.041	<0.041	<0.038	<0.044	<0.042	<043	<0.042	<0.039	<0.051	<0.036			
	1-Methyl-	napthalene	(mg/kg)	89	470	2.2	<0.040	<0.041	<0.040	<0.041	<0.041	<0.038	<0.044	<0.042	<0.43	<0.042	<0.039	<0.051	<0.036			
	Naph-	thalene	(mg/kg)	40	270	1.7	<0.020	<0.021	<0.020	<0.020	<0.020	<0.019	<0.022	<0.021	<0.21	<0.021	<0.020	<0.025	<0.018			
		MTBE	(mg/kg)	3200	22000	0.2	<0.0011	<0.001	<0.001	<0.001	<0.001	<0.0013	<0.0015	<0.0014	<0.13	<0.0014	<0.0013	<0.002	<0.001			
	Total	Xylenes	(mg/kg)	2900	40000	0.2	0.001	0.0022	0.0018	0.0129	0.001	<0.0037	<0.0046	<0.0042	<0.39	<0.0041	0.0014	0.0017	0.0012			
	Ethyl-	penzene	(mg/kg)	1100	8400	0.6	<0.0011	<0.001	<0.001	0.0021	<0.001	<0.0013	<0.0015	<0.0014	<0.13	<0.0014	<0.0013	<0.002	<0.001			
		Toluene	(mg/kg)	380	2600	0.5	<0.0011	0.0015	0.005	0.0056	<0.001	<0.0013	<0.0015	<0.0014	<0.13	<0.0014	<0.0013	<0.002	<0.001			
		Benzene	(mg/kg)	1.1	1.6	0.007	<0.0011	<0.001	<0.0012	<0.0012	<0.0012	<0.0013	<0.0015	<0.0014	<0.13	<0.0014	<0.0013	<0.002	<0.001			
OVA	Net OVA	Reading	(mg/kg)				SN	NS	NS	NS	SN	12	0	0	1660	0	0	0	0			
	Sample	Interval	(lbls)				3	2.5	3.5	3	2.5	2	4	4	4	3	3	2	2			
_	Depth	to	Water (ft)	sure Limits	sure Limits	er Limits	~0.5	~0.5	~0.5	~0.5	~0.5	~4.5	~4.5	~4.5	~4.5	~4.0	~4.0	~3.0	~3.0			
Sample	Date	Collected		Residenital Direct Exposure Limits	Commercial Direct Exposure Limits	eachability Groundwater Limits	8/17/01	8/17/01	8/17/01	8/17/01	8/17/01	8/16/01	8/16/01	8/16/01	8/16/01	8/16/01	8/17/01	8/17/01	8/17/01			
	Sample	ID		Residenita	Commerci	Leachabilii	TB·1	TB.2	TB-3	TB-4	TB-5	PB-1	PB-2	PB-3	PB-4	PB-5	PB-6	PB-7	PB-8			

NS = Not Screened-All samples were saturated

TABLE 2: SOIL ANALYTICAL SUMMARY

Facility Name: Mayport Tank Closure/Tank #204

Facility ID Number: 168626008

3	active in alpha can come of the many many	•																
	Sample	A.		OVA														
Sample	e Date	Depth	Sample	Net OVA					Fluor-		Benzo (a)-		Benzo (b)	Benzo (k)	Benzo (a)-	Dibenzo(a,h)-	Berzo(g,h,l,)-	Ideno(1,2,3-cd)-
₽	Collected	to	Interval	Reading	Acenaphthene	Fluorene	Phenanthrene Anthracene	Anthracene	anthene	Pyrene	anthracene	Chrysene	Chrysene fluoranthene	fluoranthene	pyrere	anthracene	perylene	pyrene
		Water	(fbls)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ng/kg)	(mg/kg)
rect E	rect Exposure Limits	i i			1900	2200	2000	18000	2900	2200	1.4	140	1.4	15	0.1	0.1	2300	1.5
irect E	irect Exposure Limits	ts			18000	28000	30000	260000	48000	37000	2	450	4.8	52	0.5	0.5	41000	5.3
Ground	Groundwater Limits		-		2.1	160	250	2500	1200	880	32	77	10	25	80	30	32000	28
TB-1	8/17/01	~0.5	3	SN	<0.020	<0.004	<0.040	<0.020	<0.004	<0.004	<0.020	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TB-2	8/17/01	-0.5	2.5	SN	<0.021	<0.0041	<0.041	<0.021	<0.0041	<0.0041	<0.021	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041
TB.3	8/17/01	~0.5	3.5	SN	<0.020	<0.004	<0.040	<0.020	0.008	6600.0	<0.020	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TB-4	8/17/01	~0.5	3	NS	<0.020	<0.0041	<0.041	<0.020	<0.0041	<0.0041	<0.020	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041
TB-5	8/17/01	~0.5	2.5	NS	<0.020	<0.0041	<0.041	<0.020	<0.0041	<0.0041	<0.020	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041
PB-1	8/16/01	-4.5	2	12	0.097	<0.0038	0.2	<0.019	0.42	0.43	0.16	0.15	0.056	0.04	0.052	0.017	0.02	0.038
PB:2	8/16/01	-4.5	4	0	<0.022	<0.0044	<0.044	<0.022	0.074	0.084	0.039	0.04	0.017	0.011	0.014	0.0047	9500.0	0.029
PB-3	8/16/01	-4.5	4	0	<0.021	<0.0042	<0.042	<0.021	0.023	0.042	<0.021	0.01	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042
PB-4	8/16/01	~4.5	4	1660	<0.21	0.043	<0.43	<0.21	0.058	0.093	<0.21	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043
PB-5	8/16/01	-4.0	3	0	0.31	<0.0042	97.0	<0.021	1.2	1.3	0.49	0.46	0.16	0.12	0.17	0.049	0.059	0.11
PB.6	8/17/01	-4.0	3	0	<0.020	6800.0>	<0.039	<0.020	0.012	0.0.5	<0.020	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	-0.0039	<0.0039
PB-7	8/17/01	~3.0	2	0	<0.025	<0.0051	<0.051	<0.025	6900.0	0.0078	<0.025	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
PB.8	8/17/01	~3.0	2	0	<0.018	<0.0036	<0.036	<0.018	<0.013	<0.016	<0.018	<0.0035	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036
-																		
									1									

NS = Not Screened-All samples were saturated

TABLE 3: TEMPORARY WELL CONSTRUCTION DETAILS
Facility ID No: 168626008

/Tank #204 rt Tank Clo

Facility Name	e: Mayport Tai	Facility Name: Mayport Tank Closure/Tank #204	£20 4			Facility ID No: 168626008	168626008	
WELL	DATE	INSTALLATION	TOP OF	A/G RISER	TOTAL WELL	SCREENED	WELL	
NO.	INSTALLED	METHOD	CASING	LENGTH, IF	DEPTH	INTERVAL	DIAMETER	LITHOLOGY OF SCREENED INTERVAL
			ELEVATION	APPLICABLE	(FEET)	(FBLS)	(IN.)	
TB-1	8/17/01	HAND AUGER	NA	NA	8~	0.8	2	light tan-gray, sand with trace shell fragments
TB-2	8/17/01	HAND AUGER	NA	NA	8~	8.0	2	light tan-gray, sand with trace shell fragments
TB-3	8/17/01	HAND AUGER	NA	NA	8~	8-0	2	light tan-gray, sand with trace shell fragments
TB-4	8/17/01	HAND AUGER	NA	NA	-8	0-8	2	light tan-gray, sand with trace shell fragments
TB-5	8/17/01	HAND AUGER	NA	NA	-8	0.8	2	light tan-gray, sand with trace shell fragments
PB-1	8/16/01	HAND AUGER	NA	NA	8~	0.8	2	light tan-gray, sand with trace shell fragments
PB-2	8/16/01	HAND AUGER	NA	NA	-8	0-8	2	light tan-gray, sand with trace shell fragments
PB-3	8/16/01	HAND AUGER	NA	NA	8~	0.8	2	light tan-gray, sand with trace shell fragments
PB-4	8/16/01	HAND AUGER	NA	NA	8~	0.8	2	light tangray, sand with trace shell fragments
PB-5	8/16/01	HAND AUGER	NA	NA	8~	0.8	2	light tan-gray, sand with trace shell fragments
PB-6	8/17/01	HAND AUGER	NA	NA	8~	0.8	2	light tangray, sand with trace shell fragments
PB-7	8/17/01	HAND AUGER	NA	NA	8~	0.8	2	light tangray, sand with trace shell fragments
PB-8	8/17/01	HAND AUGER	NA	NA	8~	0.8	2	light tan-gray, sand with trace shell fragments

TABLE 4: GROUNDWATER LABORATORY ANALYTICAL SUMMARY

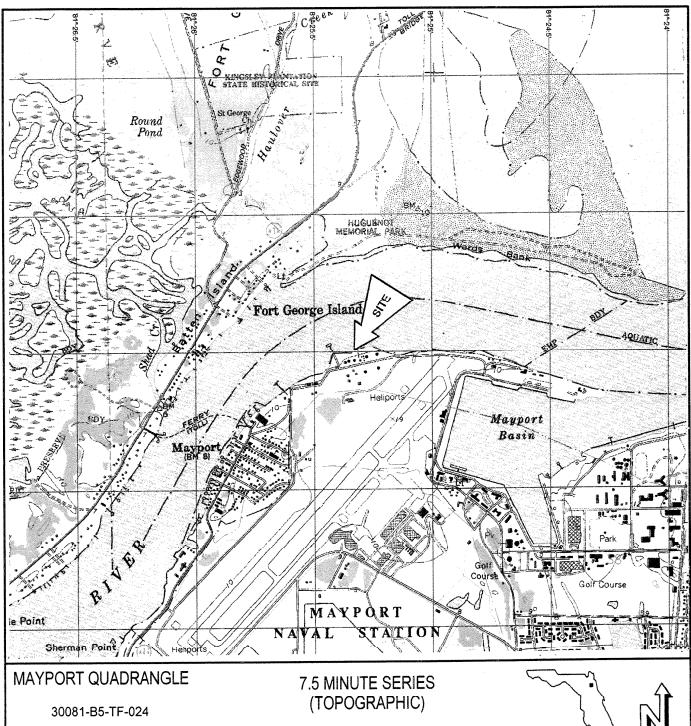
Facility Name: Mayport Tank Closure/Tank #204

Facility ID No: 168626008

Not Analyzed = NA All results in micrograms per liter (ug/!.)

1 =	Sample			Ethyl-	Total		Naph-	1-Methyl	2-Methyl	Chloro-	Acenaph-		Fluor-		Benzo(a)-				TRPH
ocation	Date	Senzene	Toluene	berzene	Xylenes	MTBE	thalene	napthalene	napthalene	methane	thene	Fluorene	anthene	Pyrene	unthracene	Chrysene	Lead	EDB	mg/L
ွင္ပ	Ħ	-	04	õ	22	20	20	20	20	2.7	20	280	280	210	0.2	4.8	15	0.02	2000
1	08/17/01	<1.0	<1.0	41.0	<2.5	<2.0	3.1	3.9	3.8	<1.0	<0.50	<0.10	0.94	1.1	<0.10	<0.10	<5.0	<0.020	1.2
T-	08/17/01	<1.0	<1.0	4.0	<2.3	<2.0	1.2	<1.0	<1.0	<1.0	<0.50	1.2	1.7	1.6	<0.10	<0.10	<5.0	<0.020	0.87
+	08/17/01	<1.0	<1.0	0.⊳	<2.0	<2.0	<0.50	<1.0	<1.0	<1.0	<0.50	<0.10	2.5	2.7	0.64	0.76	<5.0	<0.020	1.1
*****	08/17/01	<1.0	<1.0	0.1≥	<2.5	<2.0	<0.50	<1.0	<1.0	3.8	<0.50	<0.10	2.4	2.3	0.30	0.33	6.0	<0.020	1.2
 	08/17/01	<1.0	<1.0	4.0	<2.5	<2.0	<0.50	<1.0	<1.0	6.1	<0.50	<0.10	2.1	1.9	0.26	0.28	8.0	<0.020	0.91
	08/16/01	<1.0	<1.0	<1.0	<2.0	<2.0	<0.50	<1.0	<1.0	4.7	<0.50	<0.10	0.95	69.0	<0.10	<0.10	65.0	<0.020	69.0
	08/16/01	<1.0	<1.0	0.10	<2.0	<2.0	<0.50	<1.0	<1.0	<1.0	<0.50	<0.10	0.14	0.35	<0.10	<0.10	<5.0	<0.020	<0.20
PB.3	08/16/01	<1.0	<1.0	<1.0	<2.0	<2.0	<0.50	<1.0	<1.0	<1.0	<0.50	<0.10	0.17	0.57	<0.10	<0.10	<5.0	<0.020	0.28
1	08/16/01	<1.0	<1.0	<1.0	<2.0	<2.0	<0.50	<1.0	<1.0	<1.0	<0.50	<0.10	0.46	1.1	<0.10	<0.10	<5.0	<0.020	7.7
1	08/16/01	<1.0	<1.0	<1.0	<2.0	<2.0	<0.50	<1.0	<1.0	<1.0	<0.50	<0.10	<0.10	0.21	<0.10	<0.10	<5.0	<0.020	<0.20
1	08/17/01	<1.0	<1.0	<1.0	<2.0	<2.0	<0.50	<1.0	<1.0	<1.0	<0.50	<0.10	<0.10	0.26	<0.10	<0.10	<5.0	<0.020	<0.20
1	08/17/01	<1.0	<1.0	<1.0	<2.0	<2.0	<0.50	<1.0	<1.0	<1.0	0.51	<0.10	0.83	1.3	<0.10	<0.10	<5.0	<0.020	3.3
1	08/17/01	<1.0	<1.0	<1.0	<2.0	<2.0	<0.50	<1.0	<1.0	<1.0	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	€5.0	<0.020	<0.20
П								The state of the s	THE PROPERTY OF THE PROPERTY O										
T	AND DESCRIPTION OF PERSONS ASSESSED.		The second secon	***************************************						CALL DE LA CONTRACTOR D									

FIGURES



PHOTOREVISED 1982

DMA 4744 IV NW-SERIES V847

CONTOUR INTERVAL 10 FEET





NATIONAL GEODETIC VERTICAL DATUM OF 1929

FIGURE 1 TOPOGRAPHIC SITE LOCATION MAP

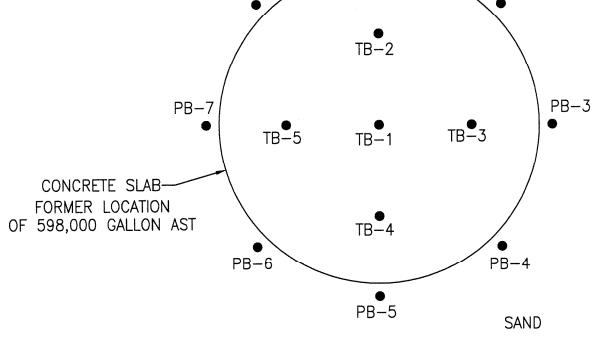


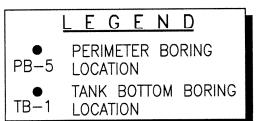
MAYPORT TANK CLOSURE/TANK #204 MAYPORT NAVAL STATION

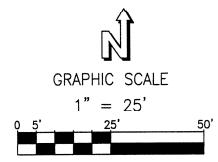
DRAWN BY: JJR

REFERENCE: MAP OF MAYPORT, FLORIDA PREPARED BY: U. S. GEOLOGICAL SURVEY

ST. JOHNS RIVER SAND PB-1 PB-2 TB-2 PB-3 PB-3







JOB #01-150-06

FIGURE 2. SITE PLAN & SAMPLING LOCATIONS



MAYPORT AST CLOSURE/TANK #204 MAYPORT NAVAL AIR STATION JACKSONVILLE, FLORIDA

DRAWN BY: KJS

DATE: 10/8/01

APPENDIX A LIMITED CLOSURE SUMMARY REPORT



Department of Environmental Protection

DEP Form 62-761.900(8)
Form Title: Limited Closure
Summary Report:
Effective Date: July 13, 1998

n Towers Office Building ♦ 2600 Blair Stone Road ♦ Tallahassee, Florida 32399-2400

Limited Closure Summary Report

This form is required for facilities that have sites with documented contamination requiring a site assessment in accordance with Chapter 62-770, F.A.C. This includes those facilities that are eligible for the Early Detection Incentive Program (EDI), the Florida Petroleum Liability and Restoration Insurance Program (FPLRIP), and the Petroleum Cleanup Participation Program (PCPP), pursuant to Sections 376.3071 and 376.3072, F.S. Documentation of procedures followed, and results obtained during closure shall be reported in this form, along with any attachments. This form shall be submitted to the County within 60 days of completion of the closure in accordance with Section A of the "Storage Tank System Closure Assessment Requirements."

Complete All Applicable Blanks. Please Print or Type

General Information	<u>u</u>			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Date: 08/17/01	FDEP Facility ID Number: 16	8626008		County: DI	UVAL	
Facility Name MAYPOR	RT NAVAL STATION		Facility Te	lephone #: ()	
Facility Address:						
Owner or Operator Name	:		Owner/Ope	erator phone	#: ()	
Mailing Address:						
Storage Tank Syste	m Closure Information					
1. Were the storage tanks	(s): (Check one or both)					
Aboveground		Under	ground			
2. General System Informati	ion					
Types of Products Stored		Number of	Tanks: ON	E(1)	Age(s) of Tan	ks: ~40
Types of Frontain Stored			***************************************		yrs.	
☑ Tank Systems Removal?	re Summary Report Performed a Spill Containment Insta Place? Dispenser Liners Install	llation?	Change	in Storage to a	Non-Regulated S	ubstance?
Tank Systems Closed in I	rrier Installation?	rier Installation?				
Piping Sump Installation)					
4. Please Check Yes or N		_				
a. Was there previously	☐ Yes	✓No				
1. A Discharge Re	☐ Yes	□ No				
2. An investigation	Yes	☐ No				
b. Is the depth to ground	☑ Yes	□ No				
c. Are there monitoring	☐ Yes	Ø No				
 Groundwater m 	☐ Yes	□ No				
2. Vapor monitori	☐ Yes	□ No				
3. Used for closur	☐ Yes	□No				
4. Properly closed	☐ Yes	□ No				
5. Retained for site	☐ Yes	□No				
d. If tanks were replaced	, were contaminated soils returne	ed to the tank	excavation?		☐ Yes	□ No
Signature of owner or	Limited Cl	y. WE person perfor osure Assessn	nent	Name	of person performed Closure Asses	rming
(date)	(date) 9/17/	on recycled pap	Affili er.	ation Aerast	er Env. Sucs	, Inc.

APPENDIX B STORAGE TANK FACILITY REGISTRATION FORM



Florida Department of Environmental Protection Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DEP Form # 62-761.900(2)
Form Title Storage Tank Registration Form
Effective Date: July 13, 1998
DEP Application No.
(Filled in by DED)

Storage Tank Facility Registration Form

Submit a completed form for the facility when registration of storage tanks or compression vessels is required by Chapter 376.303, Florida Statutes

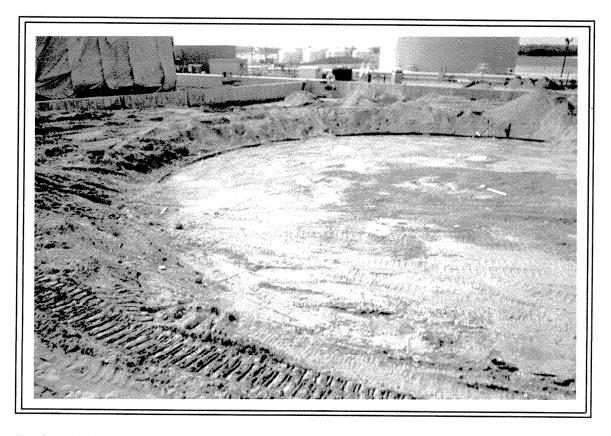
Please review Registration Instructions before completing the form.

Please check all that	apply	[] New Registra			New Own	9r		Tanks	
Addings		Facility Info	Update/Corre	ction [] (Owner Inf	o Update/Correction	on [√ Tank	Info Update	e/Correction
A. FACILITY INFOR	MATION	County: DU	IVAL			DEP Facil	ity ID: 16862600)8	
Facility Name: M	1AYPORT	NAVAL STATIO	N						
acility Address:						C	city: Jacksonville		Zip:
Facility Contact:									Business Phone: (
Facility Type(s):							al Responsibility: _		
24 Hour Emergency	Contact:	***************************************						Em	ergency Phone:(
B. RESPONSIBLE I	PERSON I	INFORMATION - location named a	· Identify Indiv above. Prov	idual(s) or Bus	siness(es al informa) responsible for s ation in an attach	torage tank manag ment if necessary	ement, fueli '.	ng operations, and
Name:						Facility - Respon	nsible Person Rela	tion Type:	Effective Date
Mail address:						[√] Facility A	Account Owner (pa	ays fees)	
City, ST, Zip:						Facility Account	Owner information	must be pr	ovided when the
Contact:						facility con	tains active (in-use) storage tai	nks on site.
Telephone:						STCM Account	Number (if know	n)	
dentify other approp	riate facilit	y relationships fo	or this party:	[] Facility (Owner/Op	erator [] Pro	perty Owner [] Storage T	ank Owner
lame:						Other owner, re	lationship type(s)		Effective Date
Mail address:						[] Facility O	wner/Operator		
City, ST, Zip:						[] Property	Owner		
Contact:						[] Storage T	ank Owner		•
Telephone:				······································	***************************************	[] Other:			
C. TANK/VESSEL IN	IFORMAT	ION - Complete	one row for	each storage	tank or o	compression ves	sel system locate	d at this fac	cility.
Tank ID T/V	A/U	Capacity	Installed	Content		/Effective Date	Construction	Piping	Monitoring
1 T	A	1.5 m gal	1964	<u> </u>	B	08/01	С		
									
			ļ		-				
				 	+				
Certified Contractor (performing	tank installation	or removal):				DBPR License No.:		
Registration Certific	cation:	To the best of	my knowledo	ge and belief,	all infor	mation submitted	I on this form is tr	ue, accura	e, and complete
Printed Name & Titl	Δ		Sic	ınature				Date	
EP 62-761.900(2)	~		Sig	gilatui V				Date	
Northwest District 160 Governmental Center	Blvd. 7825	heast District 5 Baymeadows Way, a B200	Central District 3319 Maguire Suite 232		est District oconut Palm	Southeast Dist Drive 400 North Con			Marathon Branch Offi 2796 Overseas Hwy. Suite 221
Pensacola, FL 32501 850-595-8360	Jack	sonville, FL 32256 448-4300	Orlando, FL 3 407-894-7555		FL 33619 I-6100	W Paim Beach 561-681-6600		s, FL 33901 975	Marathon, FL 33050 305-289-2310

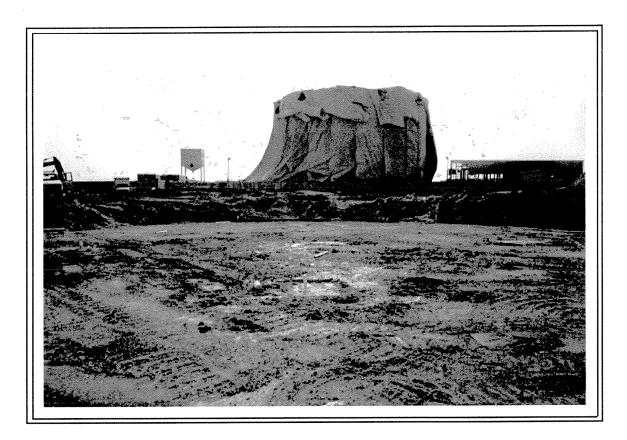
APPENDIX C PHOTOGRAPHIC DOCUMENTATION



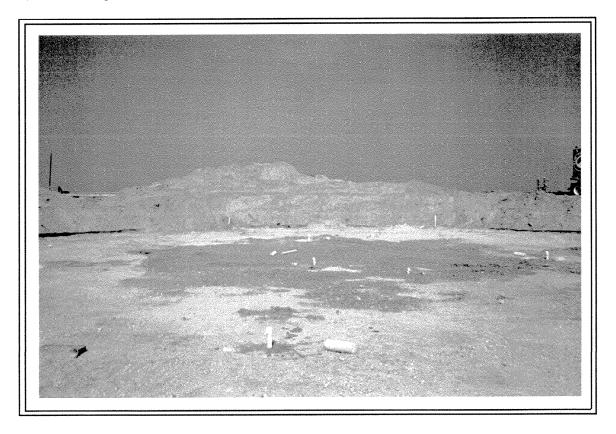
1) View facing north across the bottom of former Tank #204, St. Johns River in the background.



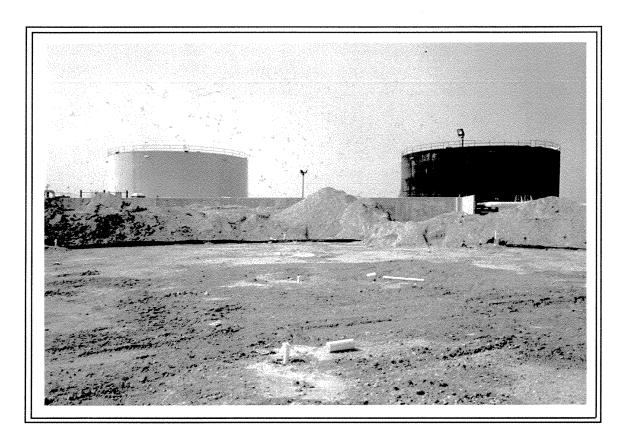
2) View facing west across the bottom former Tank #204, new tank and St. Johns River in the background.



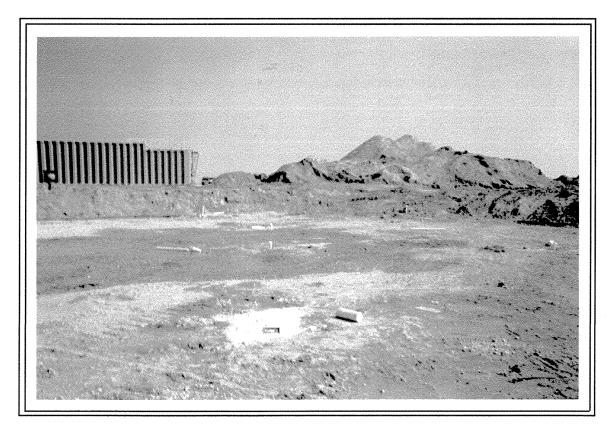
3) View facing south with new tank construction in the background.



4) View facing east across bottom of former Tank #204.



5) View facing northwest at soil/groundwater sampling locations in the former tank bottom and northwestern perimeter.



6) View facing southeast at soil/groundwater sampling locations in the former tank bottom and southeastern perimeter.

APPENDIX D LABORATORY ANALYTICAL REPORTS

CLIENT : Environmental Recovery REPORT # : JAX19195

ADDRESS: 251 Levy Road DATE SUBMITTED: August 21, 2001

Atlantic Beach, FL 32233 DATE REPORTED : August 30, 2001

PAGE 1 OF 27

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT : MAYPORT NAVAL ST.

Tank Closure

08/20/01

#1 - PB4 @ 10:10 #2 - PB6 @ 10:35 #3 - PB5 @ 11:00 - PB7 @ 11:20 #4 - PB8 @ 11:35 #5 #6 - TB1 @ 13:20 #7 - TB2 @ 14:00 #8 - TB3 @ 14:45 #9 - TB4 @ 15:00 - TB5 @ 13:40 #10

PROJECT	MANAGER	

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 2 OF 27

EPA METHOD 601 - VOLATILE HALOCARBONS	<u>PB4</u>	<u>PB6</u>	<u>Units</u>
Dichlorodifluoromethane	1.0 U	1.0 U	μ g/L
Dichlorodifluoromethane Chloromethane	1.0 U	1.0 U	μ g/L
Vinyl Chloride	1.0 U	1.0 U	μ g/L
Bromomethane	1.0 U	1.0 U	$\mu { t g}/{ t L}$
Chloroethane	1.0 U	1.0 U	$\mu { t g}/{ t L}$
Trichlorofluoromethane	2.0 U	2.0 U	μ g/L
1,1-Dichloroethene	1.0 U	1.0 U	$\mu exttt{g/L}$
Methylene Chloride	5.0 U	5.0 U	$\mu exttt{g/L}$
t-1,2-Dichloroethene	1.0 U	1.0 U	μ g/L
1,1-Dichloroethane	1.0 U	1.0 U	$\mu { t g}/{ t L}$
c-1,2-Dichloroethene	1.0 U	1.0 U	μ g/L
Chloroform	1.0 U	1.0 U	$\mu g/L$
1,1,1-Trichloroethane	1.0 U	1.0 U	$\mu g/L$
Carbon Tetrachloride	1.0 U	1.0 U	$\mu { t g}/{ t L}$
Carbon Tetrachloride 1,2-Dichloroethane	1.0 U	1.0 U	$\mu g/L$
Trichloroethene	1.0 U	1.0 U	$\mu g/L$
1,2-Dichloropropane	1.0 U	1.0 U	$\mu { t g}/{ t L}$
Bromodichloromethane	1.0 U	1.0 U	μg/L
c-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
1,1,2-Trichloroethane	1.0 U	1.0 U	$\mu g/L$
Tetrachloroethene	1.0 U	1.0 U	μg/L
Dibromochloromethane	1.0 U	1.0 U	μ g/L
Chlorobenzene	1.0 U	1.0 U	μg/L
Bromoform	1.0 U	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	57	56	37-161
Date Analyzed	08/24/01 16:44	08/24/01 17:45	

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 3 OF 27

	EPA METHOD 602 - VOLATILE AROMATICS	<u>PB4</u>	<u>PB6</u>	<u>Units</u>
	Methyl tert-butyl ether	2.0 U	2.0 U	μ g/L
	Benzene	1.0 U	1.0 U	$\mu { t g}/{ t L}$
	Toluene	1.0 U	1.0 U	μ g/L
	Chlorobenzene	1.0 U	1.0 U	μ g/L
	Ethylbenzene	1.0 U	1.0 U	μg/L
603000	m-Xylene & p-Xylene	1.0 U	1.0 U	μ g/L
637	o-Xylene	1.0 U	1.0 U	μ g/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	μ g/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	μ g/L
r	o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
	Surrogate:	% RECOV	% RECOV	LIMITS
	Bromofluorobenzene	116	117	52-147
	Date Analyzed	08/24/01 16:44	08/24/01 17:45	

 $[\]mathbb{U}$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 4 OF 27

RESULTS OF ANALYSIS

	EPA METHOD 8310 - PAH BY HPLC	PB4	<u>L</u>	PB6	<u>i</u>	<u>Units</u>
	Naphthalene	0.50	U	0.50		μg/L
	Acenaphthylene	1.0	U	1.0		μ g/L
	1-Methylnaphthalene	1.0	U	1.0		μ g/L
	2-Methylnaphthalene	1.0	U	1.0	U	μ g/L
	Acenaphthene	0.50	Ŭ	0.50		μg/L
*QESSE	Fluorene	0.10	U	0.10	U	μ g/L
(0700)	Phenanthrene	1.0	U	1.0	U	μ g/L
	Anthracene	0.20	U	0.20	U	μ g/L
	Fluoranthene	0.46		0.10	U	μ g/L
	Pyrene	1.1		0.26		μ g/L
	Benzo(a)anthracene	0.10	U	0.10	U	μg/L
	Chrysene	0.10	U	0.10	U	$\mu { t g}/{ t L}$
	Benzo(b) fluoranthene	0.10	U	0.10	U	μ g/L
	Benzo(k) fluoranthene	0.10	U	0.10	U	μ g/L
1	Benzo(a)pyrene	0.10	U	0.10	U	μ g/L
	Dibenzo(a,h)anthracene	0.10	U	0.10	U	μg/L
630325-01	Benzo(g,h,i)perylene	0.10	U	0.10	U	$\mu g/L$
	Indeno(1,2,3-cd)pyrene	0.10	Ŭ	0.10	Ŭ	μg/L
	Surrogate:	% REC	COV	% REC	COV	LIMITS
	p-terphenyl	77		77		43-148
	Date Prepared	08/23/01	22:30	08/23/01	22:30	
#000E3	Date Analyzed	08/27/01	11:12	08/27/01	12:04	
£0000	-					

EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB4</u>	<u>PB6</u>	<u>Units</u>
Ethylene Dibromide	0.020 U	0.020 U	μg/L
Date Prepared	08/23/01 09:30	08/23/01 09:30	
Date Analyzed	08/24/01 12:40	08/24/01 12:58	

 ${\tt U} = {\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 5 OF 27

	TOTAL METALS	METHOD	<u>PB4</u>	<u>PB6</u>	<u>Units</u>
	Lead Date Analyzed	200.7	0.0050 U 08/26/01 10:34	0.0050 U 08/26/01 10:42	mg/L
	EPA METHOD FLPRO - PETROL. RESIDUAL OR	<u>g.</u>	<u>PB4</u>	<u>PB6</u>	<u>Units</u>
	Hydrocarbons (C8-C4	0)	7.7	0.20 U	mg/L
Control of the Contro	<u>Surrogate:</u> o-Terphenyl Date Prepared Date Analyzed		<u>% RECOV</u> 84 08/24/01 11:30 08/29/01 13:02	% RECOV 86 08/22/01 10:00 08/23/01 13:43	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE : MAYPORT NAVAL ST.
PROJECT NAME : Tank Closure

PAGE 6 OF 27

	EPA METHOD 601 - VOLATILE HALOCARBONS	<u>PB5</u>	<u>PB7</u>	<u>Units</u>
	Dichlorodifluoromethane	1.0 U	1.0 U	μ g/L
	Chloromethane	1.0 U	1.0 U	μ g/L
	Vinyl Chloride	1.0 U	1.0 U	μg/L
	Bromomethane	1.0 U	1.0 U	μ g/L
	Chloroethane	1.0 U	1.0 U	μg/L
	Trichlorofluoromethane	2.0 U	2.0 U	μg/L
	1,1-Dichloroethene	1.0 U	1.0 U	$\mu g/L$
	Methylene Chloride	5.0 U	5.0 U	μg/L
(t-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
ANT REST	1,1-Dichloroethane	1.0 U	1.0 U	μg/L
	c-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
	Chloroform	1.0 U	1.0 U	μg/L
	1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
1	Carbon Tetrachloride	1.0 U	1.0 U	μg/L
j	1,2-Dichloroethane	1.0 U	1.0 U	μ g/L
6 0000	Trichloroethene	1.0 U	1.0 U	$\mu g/L$
rein.	1,2-Dichloropropane	1.0 U	1.0 U	μ g/L
	Bromodichloromethane	1.0 U	1.0 U	μg/L
	c-1,3-Dichloropropene	1.0 U	1.0 U	$\mu g/L$
	t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
	1,1,2-Trichloroethane	1.0 U	1.0 U	μ g/L
	Tetrachloroethene	1.0 U	1.0 U	μg/L
	Dibromochloromethane	1.0 U	1.0 U	μg/L
	Chlorobenzene	1.0 U	1.0 U	μg/L
	Bromoform	1.0 U	1.0 U	μg/L
WALKS !	1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
£888	1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
	1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
	Surrogate:	% RECOV	% RECOV	LIMITS
	Bromofluorobenzene	58	56	37-161
WARE TO	Date Analyzed	08/24/01 18:47	08/24/01 19:47	

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 7 OF 27

EPA METHOD 602 - VOLATILE AROMATICS	<u>PB5</u>	<u>PB7</u>	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 117 08/24/01 18:47	% RECOV 118 08/24/01 19:47	<u>LIMITS</u> 52-147

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 8 OF 27

	EPA METHOD 8310 -					
623 9	PAH BY HPLC	PB5	<u>i</u>	PB7	7_	<u>Units</u>
	Naphthalene	0.50		0.50		μg/L
	Acenaphthylene	1.0		1.0		μ g/L
	1-Methylnaphthalene	1.0		1.0		μ g/L
	2-Methylnaphthalene	1.0		1.0	U	μ g/L
	Acenaphthene	0.50		0.51		μg/L
	Fluorene	0.10		0.10		μ g/L
633	Phenanthrene	1.0		1.0		μg/L
	Anthracene	0.20		0.20	U	μ g/L
	Fluoranthene	0.10	U	0.83		μ g/L
	Pyrene	0.21		1.3		μg/L
	Benzo(a)anthracene	0.10		0.10		$\mu g/L$
	Chrysene	0.10		0.10		μg/L
	Benzo(b) fluoranthene	0.10		0.10		μg/L
]	Benzo(k)fluoranthene	0.10		0.10		μg/L
1	Benzo(a)pyrene	0.10		0.10		μg/L
90000	Dibenzo(a,h)anthracene	0.10		0.10		μg/L
6534	Benzo(g,h,i)perylene	0.10		0.10		μ g/L
	Indeno(1,2,3-cd)pyrene	0.10	υ	0.10	Ū	μg/L
	Surrogate:	% REC	OV	% REC	COV	LIMITS
	p-terphenyl	82		83		43-148
	Date Prepared	08/23/01		08/23/01		
	Date Analyzed	08/27/01	15:31	08/27/01	16:22	

EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB5</u>	<u>PB7</u>	<u>Units</u>
Ethylene Dibromide	0.020 U	0.020 U	μg/L
Date Prepared	08/23/01 09:30	08/23/01 09:30	
Date Analyzed	08/24/01 13:16	08/24/01 13:43	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 9 OF 27

TOTAL METALS	METHOD	<u>PB5</u>	<u>PB7</u>	Units
Lead Date Analyzed	200.7	0.0050 U 08/26/01 10:50	0.0050 U 08/26/01 10:59	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL OR	<u>G.</u>	<u>PB5</u>	<u>PB7</u>	<u>Units</u>
Hydrocarbons (C8-C4	0)	0.20 U	3.3	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV 97 08/22/01 10:00 08/23/01 14:23	<u>% RECOV</u> 78 08/24/01 12:00 08/29/01 13:43	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 10 OF 27

EPA METHOD 601 - VOLATILE HALOCARBONS	PB8	<u>TB1</u>	Units
Dichlorodifluoromethane	1.0 U	1.0 U	μ g/L
Chloromethane	1.0 U	1.0 U	$\mu g/L$
Vinyl Chloride	1.0 U	1.0 U	μ g/L
Bromomethane	1.0 U	1.0 U	μ g/L
Chloroethane	1.0 U	1.0 U	μ g/L
Trichlorofluoromethane	2.0 U	2.0 U	$\mu { t g}/{ t L}$
1,1-Dichloroethene	1.0 U	1.0 U	μ g/L
Methylene Chloride	5.0 U	5.0 U	$\mu { t g}/{ t L}$
t-1,2-Dichloroethene	1.0 U	1.0 U	$\mu { t g}/{ t L}$
1,1-Dichloroethane	1.0 U	1.0 U	$\mu { t g}/{ t L}$
c-1,2-Dichloroethene	1.0 U	1.0 U	μ g/L
Chloroform	1.0 U	1.0 U	μ g/L
1,1,1-Trichloroethane	1.0 U	1.0 U	$\mu { t g}/{ t L}$
Carbon Tetrachloride	1.0 U	1.0 U	μ g/L
1,2-Dichloroethane	1.0 U	1.0 U	μ g/L
Trichloroethene	1.0 U	1.0 U	μ g/L
1,2-Dichloropropane	1.0 U	1.0 U	μ g/L
Bromodichloromethane	1.0 U	1.0 U	μ g/L
□ c-1,3-Dichloropropene	1.0 U	1.0 U	μ g/L
t-1,3-Dichloropropene	1.0 U	1.0 U	$\mu g/L$
1,1,2-Trichloroethane	1.0 U	1.0 U	μ g/L
Tetrachloroethene	1.0 U	1.0 U	μ g/L
Dibromochloromethane	1.0 U	1.0 U	$\mu g/L$
Chlorobenzene	1.0 U	1.0 U	μg/L
Bromoform	1.0 U	1.0 U	$\mu g/L$
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μ g/L
1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	61	58	37-161
Date Analyzed	08/24/01 20:46	08/24/01 21:45	

 $[\]mathbb U$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 11 OF 27

<u>PB8</u>	<u>TB1</u>	<u>Units</u>
2.0 U	2.0 U	$\mu g/L$
1.0 U		μ g/L
1.0 U	1.0 U	$\mu { t g}/{ t L}$
1.0 U	1.0 U	μ g/L
1.0 U	1.0 U	μ g/L
1.0 U	1.0 U	μg/L
1.0 U	1.0 U	μ g/L
1.0 U	1.0 U	μg/L
1.0 U	1.0 U	$\mu g/L$
1.0 U	1.0 U	$\mu { t g}/{ t L}$
% RECOV	% RECOV_	<u>LIMITS</u>
121	116	52-147
08/24/01 20:46	08/24/01 21:45	
	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	2.0 U 1.0 U

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 12 OF 27

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	PB8	<u>TB1</u>	<u>Units</u>
Naphthalene	0.50 U	3.1	μg/L
<pre>Acenaphthylene</pre>	1.0 U	1.0 U	μg/L
1-Methylnaphthalene	1.0 U	3.9	μ g/L
2-Methylnaphthalene	1.0 U	3.8	μ g/L
Acenaphthene	0.50 U	0.50 U	μg/L
Fluorene	0.10 U	0.10 U	μg/L
Phenanthrene	1.0 U	1.0 U	μg/L
Anthracene	0.20 U	0.20 U	μg/L
Fluoranthene	0.10 U	0.94	μ g/L
Pyrene	0.10 U	1.1	$\mu g/L$
Benzo(a)anthracene	0.10 U	0.10 U	μg/L
Chrysene	0.10 U	0.10 U	μg/L
Benzo(b)fluoranthene	0.10 U	0.10 U	μg/L
Benzo(k) fluoranthene	0.10 U	0.10 U	$\mu g/L$
Benzo(a)pyrene	0.10 U	0.10 U	μ g/L
Dibenzo(a,h)anthracene	0.10 U	0.10 U	$\mu g/L$
Benzo(g,h,i)perylene	0.10 U	0.10 U	μ g/L
Indeno(1,2,3-cd)pyrene	0.10 U	0.10 U	$\mu { t g}/{ t L}$
Surrogate:	% RECOV_	% RECOV	LIMITS
p-terphenyl	84	75	43-148
Date Prepared	08/23/01 22:30	08/23/01 22:30	
Date Analyzed	08/27/01 17:14	08/27/01 18:06	

EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB8</u>	<u>TB1</u>	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 08/23/01 09:30 08/24/01 14:19	0.020 U 08/23/01 09:30 08/24/01 14:37	μg/L

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 13 OF 27

TOTAL METALS	METHOD	PB8	PB8 TB1 Units	
Lead Date Analyzed	200.7	0.0050 U 08/26/01 11:07	0.0050 U 08/26/01 11:15	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL ORG	3.	PB8	<u>TB1</u>	<u>Units</u>
Hydrocarbons (C8-C4	0)	0.20 U	1.2	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV 97 08/24/01 12:00 08/29/01 14:24	% RECOV 97 08/24/01 12:00 08/29/01 15:05	LIMITS 65-140

 $[\]mathbb{I}$ U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST.
PROJECT NAME : Tank Closure

PAGE 14 OF 27

EPA METHOD 601 - VOLATILE HALOCARBONS	TB2	<u>TB3</u>	<u>Units</u>
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride t-1,2-Dichloroethene 1,1-Dichloroethane c-1,2 Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethane 1,2-Dichloropropane Bromodichloromethane c-1,3-Dichloropropene t-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform	1.0 U 1.0 U	1.0 U 1.0 U	μασίλι μασίλι μασίλ
1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.0 U 1.0 U 1.0 U	1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 53 08/24/01 22:43	% RECOV 62 08/24/01 23:41	LIMITS 37-161

 $^{{\}tt U}={\tt Compound}$ was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST.
PROJECT NAME : Tank Closure

PAGE 15 OF 27

	EPA METHOD 602 - VOLATILE AROMATICS	<u>TB2</u>	<u>TB3</u>	<u>Units</u>
	Methyl tert-butyl ether	2.0 U	2.0 U	μg/L
	Benzene	1.0 U	1.0 U	μg/L
	Toluene	1.0 U	1.0 U	μ g/L
	Chlorobenzene	1.0 U	1.0 U	μ g/L
	Ethylbenzene	1.0 U	1.0 U	$\mu g/L$
********	m-Xylene & p-Xylene	1.0 U	1.0 U	μ g/L
	o-Xylene	1.0 U	1.0 U	μ g/L
	1,3-Dichlorobenzene	1.0 U	1.0 U	μ g/L
	1,4-Dichlorobenzene	1.0 U	1.0 U	μ g/L
A467770	1,2-Dichlorobenzene	1.0 U	1.0 U	μ g/L
	Surrogate:	% RECOV_	% RECOV	<u>LIMITS</u>
	Bromofluorobenzene	118	117	52-147
	Date Analyzed	08/24/01 22:43	08/24/01 23:41	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

<u>Units</u>

 $\mu g/L$

TB3

0.020 U

PAGE 16 OF 27

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	<u>TB2</u>	<u>TB3</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	1.2 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.2 0.20 U 1.7 1.6 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.20 U 2.5 2.7 0.64 0.76 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L μασ/L μα/L μα/L μα/L μα/L μα/L μα/L μα/L μα
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 74 08/23/01 22:30 08/27/01 18:57	% RECOV 73 08/23/01 22:30 08/27/01 19:49	<u>LIMITS</u> 43-148
EPA METHOD 504 -			

TB2

08/23/01 09:30 08/23/01 09:30 08/24/01 14:55 08/24/01 15:14

0.020 U

U = Compound was analyzed for but not detected to the level shown.

ETHYLENE DIBROMIDE

Date Prepared Date Analyzed

Ethylene Dibromide

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 17 OF 27

	TOTAL METALS	METHOD	TB2	<u>TB3</u>	<u>Units</u>
	Lead Date Analyzed	200.7	0.0050 U 08/26/01 11:24	0.0050 U 08/26/01 11:49	mg/L
	EPA METHOD FLPRO - PETROL. RESIDUAL ORG	<u>3.</u>	<u>TB2</u>	<u>TB3</u>	<u>Units</u>
	Hydrocarbons (C8-C4	0)	0.87	1.1	mg/L
E335555	Surrogate: o-Terphenyl Date Prepared		% RECOV 99 08/24/01 12:00	<pre>% RECOV 113 08/24/01 12:00</pre>	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 18 OF 27

EPA METHOD 601 - VOLATILE HALOCARBONS	TB4	<u>TB5</u>	<u>Units</u>
Dichlorodifluoromethane	1.0 U	1.0 U	$\mu g/L$
Chloromethane	3.8	6.1	μ g/L
Vinyl Chloride	1.0 U	1.0 U	$\mu { m g}/{ m L}$
Bromomethane	1.0 U	1.0 U	$\mu g/L$
Chloroethane	1.0 U	1.0 U	μg/L
Trichlorofluoromethane	2.0 U	2.0 U	μg/L
1,1-Dichloroethene	1.0 U	1.0 U	μg/L
Methylene Chloride	5.0 U	5.0 U	μg/L
t-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
1,1-Dichloroethane	1.0 U	1.0 U	μg/L
c 1,2-Dichloroethene	1.0 U	1.0 U	μg/L
Chloroform	1.0 U	1.0 U	μg/L
1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
Carbon Tetrachloride 1,2-Dichloroethane	1.0 U	1.0 U	μg/L
1,2-Dichloroethane	1.0 U	1.0 U	μg/L
Trichloroethene	1.0 U	1.0 U	μg/L
1,2-Dichloropropane	1.0 U	1.0 U	μg/L
Bromodichloromethane	1.0 U	1.0 U	μg/L
□ c-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
1,1,2-Trichloroethane	1.0 U	1.0 U	μg/L
Tetrachloroethene	1.0 U	1.0 U	μg/L
Dibromochloromethane	1.0 U	1.0 U	μg/L
Chlorobenzene	1.0 U	1.0 U	μg/L
Bromoform	1.0 U	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	57	56	37-161
Date Analyzed	08/25/01 04:29	08/25/01 05:26	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 19 OF 27

EPA METHOD 602 - VOLATILE AROMATICS	<u>TB4</u>	<u>TB5</u>	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
<u>Surrogate:</u> Bromofluorobenzene Date Analyzed	<u>% RECOV</u> 129 08/25/01 04:29	<u>% RECOV</u> 118 08/25/01 05:26	<u>LIMITS</u> 52-147

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 20 OF 27

EPA METHOD 8310 - PAH BY HPLC	<u>TB4</u>	<u>TB5</u>	<u>Units</u>
Naphthalene Acenaphthylene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a) anthracene Chrysene Benzo(b) fluoranthene Benzo(k) fluoranthene Benzo(a)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	0.50 U 1.0 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 2.3 0.20 U 2.4 2.3 0.30 0.33 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 1.6 0.20 U 2.1 1.9 0.26 0.28 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 91 08/23/01 22:30 08/27/01 20:41	% RECOV 103 08/23/01 22:30 08/27/01 21:32	<u>LIMITS</u> 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>TB4</u>	<u>TB5</u>	Units
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 08/23/01 09:30 08/24/01 15:32	0.020 U 08/23/01 09:30 08/24/01 15:50	μg/T.

 $[{] t U}$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 21 OF 27

TOTAL METALS	METHOD	TB4	Ŀ	TBS	<u>5</u>	<u>Units</u>
Lead Date Analyzed	200.7	0.0060 08/26/01		0.0080 08/26/01		mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL OR	<u>g.</u>	<u>TB4</u>	<u>L</u>	<u>TB</u>	<u>5</u>	<u>Units</u>
Hydrocarbons (C8-C4	0)	1.2		0.91		mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% REC 104 08/24/01 08/29/01	12:00	% REC 96 08/24/01 08/29/01	12:00	LIMITS 65-140

I = Analyte detected; value is between the Method Detection Level (MDL)
 and the Practical Quantitation Level (PQL).

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 22 OF 27

EPA METHOD 601 - VOLATILE HALOCARBONS	LAB BLANK	LAB BLANK	<u>Units</u>
Dichlorodifluoromethane	1.0 U	1.0 U	$\mu { t g}/{ t L}$
Chloromethane	1.0 U	1.0 U	μg/L
Vinyl Chloride	1.0 U	1.0 U	μ g/L
Bromomethane	1.0 U	1.0 U	μ g/L
Chloroethane	1.0 U	1.0 U	μ g/L
Trichlorofluoromethane	2.0 U	2.0 U	μ g/L
1,1-Dichloroethene	1.0 U	1.0 U	μ g/L
Methylene Chloride	5.0 U	5.0 U	μ g/L
t-1,2-Dichloroethene	1.0 U	1.0 U	μ g/L
1,1-Dichloroethane	1.0 U	1.0 U	$\mu g/L$
c-1,2-Dichloroethene	1.0 U	1.0 U	μg/L
Chloroform	1.0 U	1.0 U	μg/L
1,1,1-Trichloroethane	1.0 U	1.0 U	μg/L
Carbon Tetrachloride	1.0 U	1.0 U	μg/L
1,2-Dichloroethane	1.0 U	1.0 U	μg/L
Trichloroethene	1.0 U	1.0 U	$\mu g/L$
1,2-Dichloropropane	1.0 U	1.0 U	μg/L
Bromodichloromethane	1.0 U	1.0 U	μg/L
c-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
t-1,3-Dichloropropene	1.0 U	1.0 U	μg/L
1,1,2-Trichloroethane	1.0 U	1.0 U	μg/L
Tetrachloroethene	1.0 U	1.0 U	μg/L
Dibromochloromethane	1.0 U	1.0 U	μg/L
Chlorobenzene	1.0 U	1.0 U	μg/L
Bromoform	1.0 U	1.0 U	μg/L
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	μg/L
1,4-Dichlorobenzene	1.0 U	1.0 U 1.0 U	μg/L μg/L
1,2-Dichlorobenzene	1.0 U	1.0 0	μg/Li
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	60	60	37-161
Date Analyzed	08/24/01 08:40	08/24/01 08:40	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST.
PROJECT NAME : Tank Closure

PAGE 23 OF 27

EPA METHOD 602 - VOLATILE AROMATICS	LAB BLANK	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	2.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L
Surrogate: Bromofluorobenzene Date Analyzed	% RECOV 118 08/24/01 08:40	% RECOV 118 08/24/01 08:40	<u>LIMITS</u> 52-147

 $[\]mathbb U$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 24 OF 27

RESULTS OF ANALYSIS

EPA METHOD 8310 - PAH BY HPLC	LAB BLANK	<u>Units</u>
Naphthalene Acenaphthylene	0.50 U 1.0 U	μg/L μg/L
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene	1.0 U 1.0 U 0.50 U	μg/L μg/L μg/L
Fluorene Phenanthrene	0.10 U 1.0 U	μg/L μg/L μg/L
Anthracene Fluoranthene Pyrene	0.20 U 0.10 U 0.10 U	μg/L μg/L
Benzo(a) anthracene Chrysene Benzo(b) fluoranthene	0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L
Benzo(k)fluoranthene Benzo(a)pyrene	0.10 U 0.10 U	μg/L μg/L
Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Indeno(1,2,3-cd)pyrene	0.10 U 0.10 U 0.10 U	μg/L μg/L μg/L
Surrogate:	% RECOV	<u>LIMITS</u> 43-148
p-terphenyl Date Prepared Date Analyzed	79 08/23/01 22:30 08/26/01 23:08	43-140

EPA METHOD 504 - ETHYLENE DIBROMIDE	LAB BLANK	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 08/23/01 09:30 08/23/01 11:58	μg/L

t U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST.
PROJECT NAME : Tank Closure

PAGE 25 OF 27

TOTAL METALS	METHOD	LAB BLANK	LAB BLANK	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 08/24/01 11:19	NA	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL OR	<u>G.</u>	LAB BLANK	LAB BLANK	<u>Units</u>
Hydrocarbons (C8-C4	0)	0.20 U	0.20 U	mg/L
Surrogate: o-Terphenyl Date Prepared Date Analyzed		% RECOV 84 08/22/01 10:00 08/22/01 16:54	% RECOV 100 08/24/01 11:30 08/29/01 11:41	<u>LIMITS</u> 65-140

 $[\]mathbb U$ = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 26 OF 27

QUALITY CONTROL DATA

<u>Parameter</u>	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD <u>MS/MSD</u>	ACCEPT LIMITS
EPA Method 601				
Methylene Chloride	112/116/111	45-161	4	29
Chloroform	114/136/111	64-154	#18	16
Carbon Tetrachloride	124/136/116	71-165	9	21
Trichloroethene	117/126/114	69-158	7	24
Tetrachloroethene	125/128/119	63-166	2	21
Chlorobenzene	116/118/108	67-147	2	19
EPA Method 601				
Methylene Chloride	110/122/102	45-161	10	29
Chloroform	124/125/105	64-154	<1	16
Carbon Tetrachloride	120/124/111	71-165	3	21
Trichloroethene	118/126/109	69-158	6	24
■ Tetrachloroethene	120/122/104		2	21
Tetrachloroethene Chlorobenzene	110/114/101	67-147	4	19
EPA Method 602				
Benzene	130/130/120	60-138	<1	17
Toluene	126/123/116	57-138	2	16
Ethylbenzene	136/132/121	49-144	3	17
O-Xylene	120/119/108	50-151	<1	17
-				
EPA Method 602				
Benzene	118/126/119	60-138	6	17
Toluene	116/122/116	57-138	5	16
Ethylbenzene	122/124/118	49-144	2	17
o-Xylene	133/138/107	50-151	4	17
Environmental Conservation		Comprehensive Of	Plan #910190	

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

^{# =} One or more of the associated values failed to meet laboratory established limits for precision.

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

REPORT # : JAX19195

DATE REPORTED: August 30, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 27 OF 27

QUALITY CONTROL DATA

Parameter	% RECOVERY	ACCEPT	% RPD	ACCEPT
	MS/MSD/LCS	LIMITS	<u>MS/MSD</u>	LIMITS
EPA Method 8310 Naphthalene Acenaphthene Benzo(a)pyrene Benzo(g,h,i)perylene	75/ 65/ 75	59-111	#14	12
	72/ 69/ 79	58-128	4	13
	89/ 84/ 88	78-134	6	15
	91/ 85/ 89	62-115	7	30
EPA Method 504 Ethylene Dibromide Dibromochloropropane	68/ 64/ 96	57-130	6	18
	72/ 76/104	60-130	5	20
TOTAL METALS Lead, 200.7	106/105/101	68-126	<1	19
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	100/100/ 97	49-162	<1	28
PETROL. RESIDUAL ORG. Hydrocarbons (C8-C40)	100/100/ 90	49-162	<1	28

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

= One or more of the associated values failed to meet laboratory established limits for precision.

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted

CLIENT : Environmental Recovery REPORT #

ADDRESS: 251 Levy Road DATE SUBMITTED: August 16, 2001

DATE REPORTED : August 28, 2001 Atlantic Beach, FL 32233

PAGE 1 OF 12

: JAXL9140

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT : MAYPORT NAVAL ST.

Tank Closure

08/16/01

- PB-1-2' @ 11:45 #1 - PB-2-4' 0 14:05 - PB-3-4' 0 15:20 - PB-4-4' 0 16:05 #2

#3 #4

- PB-5-3' @ 17:15 #5

PROJECT MANAGER

Scott D. Martin

REPORT # : JAX19140
DATE REPORTED: August 28, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 2 OF 12

EPA METHOD 8260 - VOLATILE ORGANICS	<u>PB-1-2'</u>	PB-2-4'	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene l=3-Dichlorobenzene l=4-Dichlorobenzene l=2-Dichlorobenzene	7·3 U DT 7·3 U DT 7·3 U DT 7·3 U DT 7·3 U DT 7·3 U DT 7·3 U DT	1.5 U D2 1.5 U D2	######################################
Surrogate: Dibromofluoromethane D&-Toluene Bromofluorobenzene Date Prepared Date Analyzed	<pre>% RECOV 97 98 101 08/17/01 17:45 08/22/01 12:33</pre>	% RECOV 97 95 101 08/17/01 17:45 08/22/01 13:05	LIMITS 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.
Dl = Analyte value determined from a 1:1.07 dilution.

D2 = Analyte value determined from a 1:1.14 dilution.

REPORT # : JAX19140

DATE REPORTED: August 28, 2001
REFERENCE : MAYPORT NAVAL ST.
PROJECT NAME : Tank Closure

PAGE 3 OF 12

EPA METHOD 8310 - PAH BY HPLC	PB-1-2'	PB-2-4 '	<u>Units</u>
Vaphthalene Acenaphthylene L-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Jenzo(a)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Indeno(l,2,3-cd)pyrene	19 U 38 U 38 U 97 3.8 U 200 19 U 420 430 160 150 56 40 52 17 20 38	22 U 44 U 44 U 22 U 4.4 U 22 U 74 84 39 40 17 11 14 4.7 5.6 29	**************************************
Surrogate: D-terphenyl Date Prepared Date Analyzed	% RECOV 89 08/21/01 22:00 08/24/01 15:47	<u>% RECOV</u> 80 08/21/01 22:00 08/24/01 16:38	LIMITS 39-141
AISCELLANEOUS METHOD Percent Solids SM2540G Date Analyzed	PB-1-2' 87 08/20/01 10:00	<u>PB-2-4'</u> 75 08/20/01 10:00	Units %

J = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19140

DATE REPORTED: August 28, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 4 OF 12

RESULTS OF ANALYSIS

EPA METHOD FLPRO -PETROL. RESIDUAL ORG. PB-1-2' PB-2-4' Units 7.6 U Hydrocarbons (CB-C4D) 8-8 U mg/Kg % RECOV % RECOV LIMITS Surrogate: 65 51 51-148 o-Terphenyl 09/57/07 53:00 Date Prepared 08/57/07 53:00 08/55/07 7P:75 08/22/01 15:32 Date Analyzed

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19140

DATE REPORTED: August 28, 2001

REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 5 OF 12

EPA METHOD 8260 - VOLATILE ORGANICS	PB-3-4'	PB-4-4'	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene l-3-Dichlorobenzene l-2-Dichlorobenzene	1.4 U D3 1.4 U D3 1.4 U D3 1.4 U D3 1.4 U D3 1.4 U D3 1.4 U D3 1.4 U D3 1.4 U D3 1.4 U D3	130 U D4 130 U D4	19/K 19/K 19/K 19/K 19/K 19/K 19/K 19/K
Surrogate: Dibromofluoromethane DB-Toluene Bromofluorobenzene Date Prepared Date Analyzed	<pre>% RECOV 99 96 97 08/17/01 17:45 08/22/01 13:37</pre>	% RECOV 95 95 95 95	LIMITS 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

D3 = Analyte value determined from a 1:1.1 dilution.

D4 = Analyte value determined from a 1:100 dilution.

REPORT # : JAX19140

DATE REPORTED: August 28, 2001
REFERENCE : MAYPORT NAVAL ST-

PROJECT NAME : Tank Closure

PAGE 6 OF 12

EPA METHOD 8310 - PAH BY HPLC	PB-3-4'	PB-4-4'	<u>Units</u>
Naphthalene Acenaphthylene L-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Dibenzo(a;h)anthracene Benzo(g;h;i)perylene Indeno(l;2;3-cd)pyrene	21000000000000000000000000000000000000	210 U D5 430 U D5 58	**************************************
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 88 08/21/01 22:00 08/24/01 17:30	% RECOV 77 08/21/01 22:00 08/27/01 13:47	LIMITS 39-141
MISCELLANEOUS METHOD Percent Solids SM2540G Date Analyzed	PB-3-4' 79 08/20/01 10:00	PB-4-4' 77 08/20/01 10:00	Units %

U = Compound was analyzed for but not detected to the level shown- D5 = Analyte value determined from a 1:10 dilution.

REPORT # : JAXL9140

DATE REPORTED: August 28, 2001 REFERENCE : MAYPORT NAVAL ST. PROJECT NAME : Tank Closure

PAGE 7 OF 12

RESULTS OF ANALYSIS

PA METHOD FLPRO -PETROL. RESIDUAL ORG. PB-3-4' PB-4-4' Units lydrocarbons (CB-C4D) 350 5200 Db mg/Kg % RECOV % RECOV Surrogate: LIMITS 78 ∍-Terphenyl 51-148)ate Prepared 09/51/07 53:00 09/57/07 53:00 Date Analyzed 08/22/01 15:42 08/22/01 16:52

⁼ Surrogate recovery unavailable due to sample dilution. U = Compound was analyzed for but not detected to the level shown.

Db = Analyte value determined from a 1:20 dilution.

REPORT # : JAX19140

DATE REPORTED: August 28, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 8 OF 12

EPA METHOD 8260 - VOLATILE ORGANICS	PB-5-3'	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene l-3-Dichlorobenzene l-4-Dichlorobenzene l-2-Dichlorobenzene	1.4 U D2 1.4 U D2	100 U D4 100 U D4 100 U D4 100 U D4 200 U D4 100 U D4 100 U D4 100 U D4	19/KK99/KK89/KK89/KK89/KK89
Surrogate: Dibromofluoromethane D8-Toluene Bromofluorobenzene Date Prepared Date Analyzed	% RECOV 90 115 98 08/17/01 17:45 08/22/01 14:16	% RECOV 92 91 94 08/20/01 13:36	LIMITS 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:1.14 dilution.

D4 = Analyte value determined from a 1:100 dilution.

REPORT # : JAX19140

DATE REPORTED: August 28, 2001

REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 9 OF 12

EPA METHOD 8310 -			_
PAH BY HPLC	<u>PB-5-3'</u>	<u>LAB</u> <u>BLANK</u>	<u>Units</u>
Naphthalene	5J N	7P N	µg/Kg
<pre>Macenaphthylene</pre>	42 U	33 U	μg/Kg
l-Methylnaphthalene	42 U	33 U	μg/Kg
2-Methylnaphthalene	42 U	33 U	μg/Kg
Acenaphthene 1900/1800/2.	/ 310	ፓ Ρ በ	μg/Kg
Fluorene 2200/2200/160	4.2 U	3.3 U	μg/Kg
Phenanthrene 2000/30000/250	760	33 U	μg/Kg
Anthracene 1800/260000/2500	5 T N	7P N	μg/Kg
Fluoranthene 2900/48 cm/1200	1200	3.3 U	μg/Kg
Pyrene 2200/5000/840	1300	3.3 U	μg/Kg
Benzo(a)anthracene (4/5/32	490	7P N	μg/Kg
Chrysene 140/456/77	460	3.3 U	μg/Kg
Benzo(b)fluoranthene 54/4.	s ∕ (o 160	3.3 U	μg/Kg
Benzo(k)fluoranthene 15/52/	120	3.3 U	μg/Kg
Benzo(a)pyrene 0.1/0.5/8 /	170	3.3 U	μg/Kg
Dibenzo(a ₁ h)anthracene • 1/	0.5/30 49	3.3 U	μg/Kg
Benzo(qahai)pervlene 230/48	1600 Azara 59	3.3 U	μg/Kg
Indeno(1-2-3-cd)pyrene (5	15,3/28 110	3.3 U	μg/Kg
Surrogate:	% RECOV	% RECOV	LIMITS
p-terphenyl	755	91	39-141
Date Prepared	08/51/07 55:00	08/51/01 55:00	
Date Analyzed	08/24/01 18:22	08/23/01 01:15	
MISCELLANEOUS METHOI	<u>PB-5-3'</u>	LAB BLANK	Units

NA %	
j	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19140

DATE REPORTED: August 28, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 10 OF 12

RESULTS OF ANALYSIS

EPA METHOD FLPRO -PETROL. RESIDUAL ORG. PB-5-3' LAB BLANK Units Hydrocarbons (CB-C40) 14 6.6 U mg/Kg % RECOV % RECOV Surrogate: LIMITS o-Terphenyl 60 68 51-148 09/57/07 53:00 Date Prepared 09/57/07 53:00 Date Analyzed 08/55/07 7P:05 08/22/01 12:58

I = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19140

DATE REPORTED: August 28, 2001

REFERENCE : MAYPORT NAVAL ST
PROJECT NAME : Tank Closure

PAGE 11 OF 12

EPA METHOD 8260 - VOLATILE ORGANICS	LAB BLANK	<u>Units</u>
Methyl tert-butyl ether	1.0 U	μg/Kg
Benzene	ī. ū	μg/Kg
Toluene	ī. ū	μg/Kg
Chlorobenzene	1.0 U	μg/Kg
Ethylbenzene	1.0 U	μg/Kg
m-Xylene & p-Xylene	5.0 U	μg/Kg
o-Xylene	1.0 U	μg/Kg
L-3-Dichlorobenzene	1.0 U	μg/Kg
L ₁ 4-Dichlorobenzene	1.0 U	μg/Kg
l ₁ 2-Dichlorobenzene	1.0 U	μg/Kg
		, , ,
Surrogate:	% RECOV	LIMITS
Dibromofluoromethane	97	70-134
D 8-Toluene	94	60-144
Bromofluorobenzene	97	71-127
Date Analyzed	08/22/01 07:21	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19140

DATE REPORTED: August 28, 2001
REFERENCE : MAYPORT NAVAL ST-

PROJECT NAME : Tank Closure

PAGE 12 OF 12

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 8260 L-1-Dichloroethene Benzene Trichloroethene Toluene Chlorobenzene	99/101/ 98 102/103/101 92/ 94/ 92 93/ 93/ 91	44-169 50-140 75-125 56-139 73-123	<7 <7 <7 5	19 23 17 22 24
EPA Method 8260 lal-Dichloroethene Benzene Trichloroethene Toluene Chlorobenzene	92/ 92/ 98 96/ 95/108 88/ 89/103 90/ 87/ 95 90/ 90/ 99	44-169 50-140 75-125 56-139 73-123	< 1 1 2 2 4	19 23 17 22 24
PPA Method 8310 Naphthalene Acenaphthene Benzo(a)pyrene Benzo(g,h,i)perylene	53/ 55/ 60 58/ 59/ 60 71/ 67/ 72 71/ 70/ 78	48-130 36-127 64-141 58-168	7 F 7	57 55 50 50
PETROL. RESIDUAL ORG. Hydrocarbons (CB-C40)	101/ 77/101	62-204	#27	25

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

= One or more of the associated values failed to meet laboratory established limits for precision.

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted

CLIENT : Environmental Recovery REPORT # : JAXL9158

ADDRESS: 251 Levy Road DATE SUBMITTED: August 17, 2001 Atlantic Beach, FL 32233

DATE REPORTED : August 29, 2001

PAGE 1 OF 17

MATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT : MAYPORT NAVAL ST.

Tank Closure

08/17/01

#1 - PB6-3' a 09:10 - PB7-2' #2 @ 09:35 - PB8-2' - TB1-3' a 10:05 #3 a 11:10 #4 - TBl-3' a ll:10 - TB2-2.5' a ll:50 #5 - TB3-3.5' @ 12:45 #6 #7 - TB4-3' @ 14:00 # 8 - TB5-2.5' @ 15:30

PROJECT MANAGER Scott D. Martin

REPORT # : JAX19158

DATE REPORTED: August 29, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 2 OF 17

EPA METHOD 8260 - VOLATILE ORGANICS	<u>PB6-3'</u>	<u>PB7-2'</u>	Units
Methyl tert-butyl ether Jenzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene L-3-Dichlorobenzene L-1-Dichlorobenzene L-2-Dichlorobenzene	1.3 U D1 1.3 U D1 1.3 U D1 1.3 U D1 2.7 U D1 1.4 D1 1.3 U D1 1.3 U D1 1.3 U D1	2.0 U D2 2.0 U D2 2.0 U D2 2.0 U D2 3.0 U D2 1.7 D2 2.0 U D2 2.0 U D2	######################################
Surrogate: Dibromofluoromethane DA-Toluene Bromofluorobenzene Date Prepared Date Analyzed	% RECOV 97 97 100 08/18/01 13:00 08/21/01 23:49	% RECOV 99 98 98 08/18/01 13:00 08/22/01 00:20	LIMITS 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

Dl = Analyte value determined from a l:l.l3 dilution.
D2 = Analyte value determined from a l:l.D2 dilution.

REPORT # : JAX19158
DATE REPORTED: August 29, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 3 OF 17

EPA METHOD 8310 - PAH BY HPLC	PB	<u>6-3'</u>	<u>PB7-2'</u>	Units
Naphthalene Acenaphthylene L-Methylnaphthalene 2-Methylnaphthalene Acenaphthene rluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Indeno(l,2,3-cd)pyrene	3 3 3 3 3 3	20 U 39 U 39 U 20 U -9 U 39 U 20 U 12 U 15 U -9 U -9 U -9 U -9 U -9 U	25 51 51 51 51 51 51 51 51 51 51 51 51 51	++++++++++++++++++++++++++++++++++++++
Surrogate: p-terphenyl Date Prepared Date Analyzed			% RECOV 53 8/22/01 20:00 8/28/01 04:26	LIMITS 39-141
	 125406 08/20/		<u>PB7-2'</u> 65 8/20/01 10:15 8/21/01 11:30	Units %

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001

REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 4 OF 17

PA METHOD FLPRO - PETROL. RESIDUAL ORG.	PB6-3'	<u>PB7-2'</u>	Units
lydrocarbons (C8-C40)	7.8 U	70 N	mg/Kg
Surrogate:	% RECOV	% RECOV	LIMITS
o-Terphenyl)ate Prepared	111	57	51-148
⟩ate Prepared	08/27/01 14:00	08/22/01 20:00	
Date Analyzed	08/28/01 09:30	08/24/01 09:53	

REPORT # : JAX19158

DATE REPORTED: August 29, 2001

REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 5 OF 17

SPA METHOD 8260 - JOLATILE ORGANICS	PB8-2'	TB1-3'	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene L-3-Dichlorobenzene L-4-Dichlorobenzene L-2-Dichlorobenzene	1.0 U D3 1.0 U D3 1.0 U D3 1.0 U D3 1.0 U D3 2.3 U D3 1.2 D3 1.0 U D3 1.0 U D3	1.1 U 1.1 U 1.1 U 1.1 U 1.0 1.1 U 1.1 U	на/к на/к на/к на/к к к к к к к к к к к к к к к к к к к
Surrogate: Dibromofluoromethane D&-Toluene Bromofluorobenzene Date Prepared Date Analyzed	% RECOV 95 97 99 08/18/01 13:00 08/22/01 00:50	% RECOV 86 96 104 08/18/01 13:00 08/22/01 01:21	LIMITS 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

D3 = Analyte value determined from a 1:1.04 dilution.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001
REFERENCE : MAYPORT NAVAL ST.
PROJECT NAME : Tank Closure

PAGE 6 OF 17

PA METHOD 8310 -		PB8-2'	<u>TB1-3'</u>	Units
Naphthalene Acenaphthylene L-Methylnaphthalen Remaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Renzo(a)anthracene Ihrysene Benzo(b)fluoranthe Benzo(k)fluoranthe Benzo(a)pyrene)ibenzo(a,h)anthra Benzo(g,h,i)peryle Indeno(1,2,3-cd)py	ene ene cene	18 U 36 U 36 U 36 U 36 U 36 U 48 U		######################################
Surrogate: n-terphenyl)ate Prepared)ate Analyzed		% RECOV 82 08/22/01 20:00 08/28/01 05:18	% RECOV 85 08/22/01 20:00 08/28/01 07:02	LIMITS 39-141
MISCELLANEOUS	METHOD	PB8-21	<u>TB1-3'</u>	Units
Percent Solids Date Prepared)ate Analyzed	2M254OG	91 08/20/01 10:15 08/21/01 11:30	82 08/20/01 10:15 08/21/01 11:30	%

⁼ Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 7 OF 17

RESULTS OF ANALYSIS

EPA METHOD FLPRO -PETROL. RESIDUAL ORG. PB8-2' TB1-3' Units ∰lydrocarbons (C8-C40) 7.2 U 8.D U mg/Kg Surrogate: % RECOV % RECOV LIMITS o-Terphenyl 54 61 51-148)ate Prepared 08/55/01 50:00 08/55/07 50:00 Date Analyzed 08/24/01 10:03 08/24/01 10:12

⁼ Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001

REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 8 OF 17

PA METHOD 8260 - OLATILE ORGANICS	TB2-2.5'	TB3-3.5'	<u>Units</u>
1ethyl tert-butyl ether 3enzene Toluene Chlorobenzene thylbenzene m-Xylene & p-Xylene o-Xylene 1.3-Dichlorobenzene 1.4-Dichlorobenzene 1.2-Dichlorobenzene	1.0 U D2 1.5 D2 1.0 U D2 1.0 U D2 2.0 U D2 2.2 D2 1.0 U D2 1.0 U D2 1.0 U D2	1.0 U 1.2 U 2.0 1.0 U 1.0 U 1.8 1.0 U 1.0 U	######################################
Jurrogate: Dibromofluoromethane Då-Toluene Bromofluorobenzene Date Prepared Date Analyzed	% RECOV 47 98 101 08/18/01 13:00 08/22/01 01:52	% RECOV 54 96 100 08/18/01 13:00 08/22/01 02:22	LIMITS 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:1.02 dilution.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001
REFERENCE : MAYPORT NAVAL ST.
PROJECT NAME : Tank Closure

PAGE 9 OF 17

PAH BY HPLC		TB2-2.5'	<u>TB3-3.5'</u>	<u>Units</u>
Naphthalene Acenaphthylene L-Methylnaphthalen Z-Methylnaphthalen Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthe Benzo(k)fluoranthe Benzo(a)pyrene Dibenzo(a,h)anthra Benzo(g,h,i)peryle Indeno(l,2,3-cd)py	ne ne cene ne	21 U 41		######################################
Surrogate: p-terphenyl Date Prepared Date Analyzed		% RECOV 82 08/22/01 20:00 08/28/01 07:53	% RECOV 79 08/22/01 20:00 08/28/01 08:45	LIMITS 39-141
MISCELLANEOUS Percent Solids Date Prepared Date Analyzed	<u>метнор</u> SM2540G	TB2-2.5' 80 08/20/01 10:15 08/21/01 11:30	<u>TB3-3.5'</u> 82 08/20/01 l0:l5 08/21/01 ll:30	<u>Units</u> %

J = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 10 OF 17

RESULTS OF ANALYSIS

PA METHOD FLPRO -TB2-2.5' ETROL. RESIDUAL ORG. TB3-3.5' Units ∰lydrocarbons (C8-C40) 8.2 U 8.O U mg/Kg Surrogate: % RECOV % RECOV LIMITS o-Terphenyl 64 51 51-148)ate Prepared 08/55/01 50:00 09/55/07 50:00 Date Analyzed 08/24/01 10:40 08/24/01 10:50

^{🛮 =} Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 11 OF 17

EPA METHOD 8260 - JOLATILE ORGANICS	<u>TB4-3'</u>	<u>TB5-2.5'</u>	Units
Methyl tert-butyl ether Benzene Toluene Chlorobenzene Ethylbenzene m-Xylene & p-Xylene o-Xylene L-3-Dichlorobenzene L-4-Dichlorobenzene L-2-Dichlorobenzene	1.0 U 1.2 U 5.6 1.0 U 2.1 7.0 5.9 1.0 U 1.0 U	1.0 U 1.2 U 1.0 U 1.0 U 2.3 U 1.0 U 1.0 U	19/ 19/ 19/ 19/ 19/ 19/ 19/ 19/ 19/ 19/
Surrogate: Dibromofluoromethane Då-Toluene Bromofluorobenzene Date Prepared Date Analyzed	% RECOV 42 98 99 08/18/01 13:00 08/22/01 02:53	% RECOV 96 101 101 08/18/01 13:00 08/22/01 03:23	LIMITS 70-134 60-144 71-127

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001

REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 12 OF 17

EPA METHOD 8310 - PAH BY HPLC		TB4-3'	TB5-2.5'	Units
Naphthalene Acenaphthylene L-Methylnaphthalene Acenaphthene Tluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Jibenzo(a,h)anthracen Benzo(g,h,i)perylene Indeno(l,2,3-cd)pyrene			20 U 41 U 41 U 41 U 41 U 41 U 41 U 41 U 41	######################################
Surrogate: p-terphenyl Date Prepared Date Analyzed		% RECOV 62 08/22/01 20:00 08/28/01 09:37	% RECOV 81 08/22/01 20:00 08/28/01 10:29	LIMITS 39-141
	METHOD	TB4-3' 81 08/20/01 10:15 08/21/01 11:30	<u>TB5-2.5'</u> 81 08/20/01 10:15 08/21/01 11:30	<u>Units</u> %

J = Compound was analyzed for but not detected to the level shown.

REPORT # : JAXL9158

DATE REPORTED: August 29, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 13 OF 17

RESULTS OF ANALYSIS

PA METHOD FLPRO -⊋ETROL. RESIDUAL ORG. TB4-3' TB5-2.5' Units 8.1 U 8-1 U ∭lydrocarbons (C8-C40) mg/Kg % RECOV % RECOV Surrogate: LIMITS 59 51-148 o-Terphenyl 52)ate Prepared 08/27/01 14:00 09/55/07 50:00 08/28/01 09:41 08/24/01 11:09 Date Analyzed

^{| =} Compound was analyzed for but not detected to the level shown.

REPORT # : JAXL9158

DATE REPORTED: August 29, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 14 OF 17

EPA METHOD 8260 -		
JOLATILE ORGANICS	LAB BLANK	<u> Units</u>
Mothyl tont-butul other	3 8 11	
Methyl tert-butyl ether	1.0 U	μg/Kg
Benzene	ī•	μg/Kg
Toluene	1.0 U	µg∕Kg
Chlorobenzene	1.0 U	μg/Kg
Ethylbenzene	1-0 U	μg/Kg
n-Xylene & p-Xylene	2.0 U	μg/Kg
o-Xylene	1.0 U	μg/Kg
L ₁ 3-Dichlorobenzene	1.0 U	μg/Kg
L-4-Dichlorobenzene	1.0 U	μg/Kg
1,2-Dichlorobenzene	1.0 U	μg/Kg
The bichiol obelizelle	1.0 0	μg/Ng
Surrogate:	% RECOV	LIMITS
Dibromofluoromethane	95	
	· —	70-134
D&-Toluene	98	60-144
3romofluorobenzene	98	71-127
Date Analyzed	08/21/01 18:04	

J = Compound was analyzed for but not detected to the level shown.

REPORT # : JAXL9158
DATE REPORTED: August 29, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 15 OF 17

PA METHOD 8310 -	LAB BLANK	<u>Units</u>
Naphthalene \(\cenaphthylene \) \(\lefta \	3.3 3.3 3.3 3.3 3.3 3.3 3.3 0 0 0 0 0 0	######################################
Surrogate: o-terphenyl late Prepared Date Analyzed	% RECOV 91 08/22/01 20:00 08/27/01 23:16	LIMITS 39-141

⁼ Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 16 OF 17

EPA METHOD FLPRO - PETROL. RESIDUAL ORG.	LAB BLANK	LAB BLANK	<u>Units</u>
Hydrocarbons (CA-C40)	6.6 U	6.6 U	mg/Kg
Surrogate:	% RECOV	% RECOV	LIMITS
o-Terphenyl	58	59	51-148
Date Prepared	08/55/07 50:00	08/27/01 14:00	
Date Analyzed	08/24/01 08:58	08/28/01 09:10	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19158

DATE REPORTED: August 29, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 17 OF 17

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 8260 Lal-Dichloroethene Benzene Trichloroethene Toluene Chlorobenzene	84/ 85/ 96 89/ 87/100 74/ 74/100 */ */ 92 71/ 68/ 96	44-169 50-140 75-125 56-139 73-123	* <7 *	19 23 17 22 24
EPA Method 8310 Naphthalene Acenaphthene Benzo(a)pyrene Benzo(g,h,i)perylene	73/ 77/ 68 70/ 78/ 67 71/ 76/ 71 74/ 78/ 88	48-130 36-127 64-141 58-168	5 11 7 5	17 22 21
PETROL. RESIDUAL ORG. Hydrocarbons (CB-C40)	71/ 70/ 67	62-204	l	25
PETROL· RESIDUAL ORG- Hydrocarbons (Ca-C40)	71/ 70/ 7b	62-204	ı	25

Invironmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than</pre>

MS = Matrix Spike

1SD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

* = MS/MSD/RPD unavailable due to high original sample concentration. This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted

CLIENT: Environmental Recovery

ADDRESS: 25L Levy Road

Atlantic Beach, FL 32233

DATE REPORTED: August 17, 2001

DATE REPORTED: August 30, 2001

PAGE 1 OF 11

ATTENTION: Mr. Chuck Nevin

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

PROJECT : MAYPORT NAVAL ST.

Tank Closure

08/17/01

#1 - PB1 0 15:00 #2 - PB2 0 15:20 #3 - PB3 @ 15:40

PROJECT MANAGER _____

Scott D. Martin

REPORT # : JAX19159

DATE REPORTED: August 30, 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 2 OF 11

EPA METHOD 601 - VOLATILE HALOCARBONS	PB1	PB2	<u>Units</u>
Dichlorodifluoromethane	7.0 N	7.0 N	μg/L
Chloromethane	4.7	1.0 U	μg/L
Vinyl Chloride	1.0 U	7·0 N	μg/L
Bromomethane	1.0 U	7·0 A	μg/L
Ihloroethane	1O U	7-0 N	μg/L
Trichlorofluoromethane	2.0 U	2.0 U	μg/L
l₁1-Dichloroethene	1.0 U	7·0 N	μg/L
1ethylene Chloride	5.0 U	5.0 U	μg/L
t-1,2-Dichloroethene	1.0 U	7·0 N	μg/L
l₁l-Dichloroethane	7 · O N	7·0 N	μg/L
[:-1₁2-Dichloroethene	1.0 U	7·0 N	μg/L
Ehloroform	ī•ū N	ī•0 N	μg/L
l ₁ l ₁ l-Trichloroethane	ī. ū	ī. ū	µg/L
arbon Tetrachloride	1.0 U	ī.0 N	µg/L
L-2-Dichloroethane	1.0 U	ī-0 N	μg/L
Trichloroethene	1.0 U	1.0 U	µg/L
1-2-Dichloropropane	1.0 U	7.0 U	µg/L
3romodichloromethane	1-D U	1-0 U	μg/L
Lt-1-3-Dichloropropene	1.0 U	7.0 U	μg/L
t-l ₁ 3-Dichloropropene	1.0 U	1.0 U	μg/L
L-1-2-Trichloroethane	7.0 N	7.0 U	μg/L
[etrachloroethene	1.0 U	1.0 U	μg/L
Dibromochloromethane	1.0 U	1.0 U	μg/L
Chlorobenzene	1.0 U	1.0 U	μg/L
3romoform 1,1,2,2-Tetrachloroethane	7·0 N	1.0 U	μg/L
L ₁ 3-Dichlorobenzene	1.0 U	7.0 U	μg/L
L ₁ 4-Dichlorobenzene	7·0 A	7-0 N	μg/L
L ₁ 2-Dichlorobenzene	1.0 U	7.0 N	µg/L
Bit-Dichiof obenzene	1.0 0	J. U	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
∃romofluorobenzene	54	50	37-161
Date Analyzed	08/56/07 70:53	09/5P/07 77:57	

J = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19159

DATE REPORTED: August 30, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 3 OF 11

EPA METHOD 602 - VOLATILE AROMATICS	PB1	PB2	<u>Units</u>
Methyl tert-butyl ether	5.0 N	2.0 U	μg/L
Benzene	1.0 U	7 · O · N	μg/L
Toluene	1.0 U	1.0 U	μg/L
Chlorobenzene	1.0 U	7.0 U	μg/L
Ethylbenzene	1-0 U	1O U	μg/L
Ethylbenzene m-Xylene & p-Xylene	1.0 U	7-0 U	μg/L
_o-Xylene	1.0 U	7·0 N	μg/L
L-3-Dichlorobenzene	1O U	1.0 U	μg/L
L ₁ 4-Dichlorobenzene	1.O U	7.0 A	μg/L
l₁2-Dichlorobenzene	1.0 U	1.0 U	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	127	114	52-147
Date Analyzed	09\5P\07 70:53	08/5P\07 77:57	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19159
DATE REPORTED: August 30, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 4 OF 11

EPA METHOD 8310 - PAH BY HPLC	<u>PB1</u>	PB2	<u>Units</u>
Naphthalene Acenaphthylene L-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene 3enzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene 3enzo(a)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Indeno(l,2,3-cd)pyrene	0.50 U 1.0 U 1.0 U 0.50 U 0.50 U 0.10 U 0.20 U 0.95 0.69 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	0.50 U 1.0 U 1.0 U 0.50 U 0.10 U 1.0 U 0.14 0 0.35 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	µg/L µg/L µg//L µgg//L µgg//L µgg//L µgg//L µgg//L µgg//L µgg//L
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 89 08/23/01 22:30 08/27/01 03:26	% RECOV 83 08/23/01 22:30 08/27/01 04:18	LIMITS 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	<u>PB1</u>	PB2	Units
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 08/23/01 09:30 08/24/01 11:46	0.020 U 08/23/01 12:04 08/24/01 12:04	µg∕L

J = Compound was analyzed for but not detected to the level shown.

REPORT # : JAXL9159

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 5 OF 11

FOTAL METALS	METHOD	<u>PB1</u>	PB2	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 08/24/01 12:25	0.0050 U 08/24/01 12:34	mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL OR	.G.	<u>PB1</u>	PB2	<u>Units</u>
Hydrocarbons (CB-C4	0)	0.69	0-50 N	mg/L
Surrogate: p-Terphenyl Date Prepared Date Analyzed		% RECOV 95 08/22/01 10:00 08/23/01 10:24	<pre>% RECOV 92 08/22/01 10:00 08/23/01 11:43</pre>	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19159
DATE REPORTED: August 30, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 6 OF 11

EPA METHOD 601 - VOLATILE HALOCARBONS	PB3	LAB BLANK	Units
Dichlorodifluoromethane	1.0 U	1.0 U	μg/L
Chloromethane	7.0 N	7-0 N	μg/L
Vinyl Chloride	1.O U	1.0 U	μg/L
Bromomethane	7.0 N	7 · O N	μg/L
Chloroethane	7-0 U	7-0 N	µg/L
Trichlorofluoromethane	5.0 N	2.0 U	μg/L
L-1-Dichloroethene	1.0 U	7·0 N	μg/L
Methylene Chloride	5.O U	5.0 U	μg/L
t-1,2-Dichloroethene	1.0 U	7·0 N	μg/L
l₁l-Dichloroethane	1.O U	7 · O N	μg/L
c-l ₁ 2-Dichloroethene	1.0 U	7 · Ö N	μg/L
Chloroform	1.0 U	7-0 N	μg/L
בונו - Trichloroethane	1.0 U	7-0 N	μg/L
Carbon Tetrachloride	1.0 U	1.0 U	μg/L
l ₁ 2-Dichloroethane	1.0 U	1.0 U	μg/L
Trichloroethene	7.0 N	7-0 N	μg/L
l₁2-Dichloropropane	1.0 U	7 · O U	µg/L
Bromodichloromethane	1 - 0 U	ī-0 U	μg/L
□c-l _¬ ∃-Dichloropropene	1.0 U	1.0 U	μg/L
t-l ₋ 3-Dichloropropene	1.0 U	ī. <u>ū</u> U	μg/L
L-1-2-Trichloroethane	7.0 N	ī. ū U	μg/L
Tetrachloroethene	1.0 U	7 - O N	μg/L
Dibromochloromethane	1.0 U	ī.ū N	μg/L
Chlorobenzene	ī.o n	7 · 0 · U	μg/L
Bromoform	7.0 U	7.0 U	μg/L
1,1,2,2-Tetrachloroethane	ī-0 U	1.0 U	μg/L
l ₁ 3-Dichlorobenzene	ī. 0 U	ī - ū N	μg/L
1-4-Dichlorobenzene	7.0 U	1.0 U	μg/L
L,2-Dichlorobenzene	1.0 U	1.0 U	μg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	56	56	37-161
Date Analyzed	09/56/07 75:50	08/26/01 07:41	

REPORT # : JAX19159

DATE REPORTED: August 30 2001
REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 7 OF 11

EPA METHOD 602 - VOLATILE AROMATICS	PB3	LAB BLANK	Units
Methyl tert-butyl ether	2.0 U	5.0 N	μg/L
Benzene	7-0 U	7.0 U	μg/L
Toluene	7.0 N	1.O U	μg/L
Chlorobenzene	1.0 U	1.0 U	μg/L
Ethylbenzene	1 O U	1.0 U	μ g /L
m-Xylene & p-Xylene	1.0 U	1.0 U	μg/L
_o-Xylene	1.0 U	1.0 U	μg/L
1,3-Dichlorobenzene	1.0 U	1.O U	μg/L
1,4-Dichlorobenzene	1.0 U	7.0 N	μg/L
1,2-Dichlorobenzene	1D U	1.O U	μg/L
Surrogate:	% RECOV	% RECOV_	LIMITS
Bromofluorobenzene		127	52-147
Date Analyzed	09\5P\07 75:50	08/26/01 07:41	

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAX19159

DATE REPORTED: August 30, 2001
REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 8 OF 11

EPA METHOD 8310 - PAH BY HPLC	PB3	LAB BLANK	<u>Units</u>
Naphthalene Acenaphthylene L-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Indeno(l,2,3-cd)pyrene	0.50 U 1.0 U 1.0 U 1.0 U 0.50 U 0.10 U 0.20 U 0.17 0.57 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U	0.50 U 1.0 U 1.0 U 0.50 U 0.10 U 0.20 U 0.10 U	######################################
Surrogate: p-terphenyl Date Prepared Date Analyzed	% RECOV 79 08/23/01 22:30 08/27/01 06:53	% RECOV 79 08/23/01 22:30 08/26/01 23:08	LIMITS 43-148
EPA METHOD 504 - ETHYLENE DIBROMIDE	PB3	LAB BLANK	<u>Units</u>
Ethylene Dibromide Date Prepared Date Analyzed	0.020 U 08/23/01 09:30 08:21 10/25/80	0.020 U 08:30	μg/L

REPORT # : JAX19159

DATE REPORTED: August 30 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 9 OF 11

TOTAL METALS	METHOD	<u>PB3</u>	LAB BLA	ANK	<u>Units</u>
Lead Date Analyzed	200.7	0.0050 U 08/24/01 12:5	0.0050 3/24/01		mg/L
EPA METHOD FLPRO - PETROL. RESIDUAL ORG	<u>g.</u>	PB3	LAB BLA	<u>ANK</u>	<u>Units</u>
Hydrocarbons (CB-C4	0)	0.28	0.20	U	mg/L
Surrogate: O-Terphenyl Date Prepared Date Analyzed		% RECOV 92 08/22/01 10:0 08/23/01 12:3	 % RECO 84 8/22/01 8/22/01	70:00	LIMITS 65-140

U = Compound was analyzed for but not detected to the level shown.

REPORT # : JAXL9159

DATE REPORTED: August 30, 2001 REFERENCE : MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 10 OF 11

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method <u>LOL</u> Methylene Chloride	110/155/105	45-161	70	29
Chloroform	124/125/105	64-154	<1	16
Carbon Tetrachloride	120/124/111	71-165	3	ΞĪ
Trichloroethene	779/756/704	69-158	5 P	24
Tetrachloroethene	750/755/704	P3-7PP		57
Chlorobenzene	110/114/101	67-147	4	19
EPA Method 602				
Benzene	779/756/774	PO-738	Ь	17
Toluene	776\755\77P	57-138	5 2	16
Ethylbenzene	755/754/779	49-144		7.2
o-Xylene	133/138/107	50-151	4	17
TEPA Method 8310				
Naphthalene	75/ 65/ 75	59-111	#14	15
Acenaphthene	72/ 69/ 79	58-128	4	13
Benzo(a)pyrene	89/ 84/ 88	78-134	<u> </u>	15
∐Benzo(g₁h₁i)perylene	91/ 85/ 89	62-115	7	30

Environmental Conservation Laboratories Comprehensive QA Plan #910190

= One or more of the associated values failed to meet laboratory established limits for precision.

c
tess
Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

REPORT # : JAX19159

DATE REPORTED: August 30, 2001 REFERENCE: MAYPORT NAVAL ST.

PROJECT NAME : Tank Closure

PAGE 11 OF 11

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 504 Ethylene Dibromide Dibromochloropropane	68/ 64/ 96 72/ 76/104	57-130 60-130	<u>ե</u> 5	50 79
TOTAL METALS Lead, 200.7	106/105/101	68-126	<1	19
PETROL - RESIDUAL ORG - Hydrocarbons (C8-C40)	100/100/ 97	49-162	<1	28

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than
MS = Matrix Spike</pre>

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted

APPENDIX B

GROUNDWATER SAMPLING FIELD DATA SHEETS

08JAX00097 CTO 0031



GROUNDWATER LEVEL MEASUREMENT SHEET

					ALSO THE RESIDENCE OF THE PROPERTY OF THE PROP		Charles Strategy and Charles	
Project Name: NAVSTA Mayport		Project No.:	112G00412					
Location: FBTF			Personnel:	J. Gibson				
Weather Cond	itions:	Clew	2 narm		Measuring De	vice: e	ectoric	tape
Tidally Influe			<u>X</u> No		Remarks:			
Well or			Elevation of	Total	Water Level	Thickness of	Groundwater	PID (ppm)
Piezometer	Date	Time	Reference Point		Indicator Reading		Elevation	
Number MPT-			(feet)*	(feet)*	(feet)*	(feet)*	(feet)*	BK/BH
MPT-08-MW12S	4/23/2008	1245	-	18.00	10.72	NP		<u> </u>
MPT-09-MW01S	4/23/2008	1240		18.00	11.35	NP	-	
MPT-09-MW02S	4/23/2008	12-35	-	15.00	11.40	NP	(_
MPT-09-MW03S	4/23/2008	1230		15.00	9.60	NP		_
MPT-16-MW03S	4/23/2008	1219		15.00	10.90	NP	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
MPT-FF-MW07	4/23/2008	1223	-	15.00	10.50	N.P	_	_
MPT-FF-MW08	4/23/2008	1227		14.46	10.54	NP		
								. <u> </u>
·			· 					
. =					-			
							_	
								
	BK=backgrour	nd: and BH=t	orehole of the well.		,	<u> </u>		

SITE NAME: For	rmer Bulk Tank	Facilities (FB	TF)				SITE LOCATION:	NAVSTA	Mayport			
WELL NO:	MPT-08-MW12	S			SAMPLE	ID: MPT-08	3-MW12S-040			DATE: 4/23/0	8	
		· -				PURC	GING DA	TA				
WELL	('b\ 0"	TUBING		4011		CREEN INTE		STATIC	DEPTH TER (feet): 10.	7.) PURGE PL		
	(inches): 2" UME PURGE:	DIAMETER (i			DEPTH:		to 18 feet	TO WATER	TER (feet): I ·	ACITY	R: Peristaltic	
	if applicable)		,		1 3	gallons		_	6.72) × (
	IT VOLUME PU	RGE: 1 EQUIP	MENT V	DL. = F	PUMP VOL	.UME + (TUB	ING CAPACI	ITY X		TH) + FLOW CEL	L VOLUME	
(Only fill out	if applicable)					_gallons						
	MP OR TUBING WELL (feet):	12.7			OR TUBING	12.7	PURGIN	IG ED AT: /3	PURGIN ENDED		TOTAL VOLU	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURG RATE (gpm	iE E	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (μS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	ODOR (describe)
1300	Q	0	0,0	-1	10.74	-						
1330	1.2	1,2	0.00	$\overline{\perp}$	10.75	7.23	23.69	0.50	0.35	4.08	-71.1	NORE
1335	0.2	1.4	0.0	4	10.75	7.21	23.52	0.49	1 0,24	4.48	-67.1	None
1340	9.2	1.6	0,0	4	10,75	7.22	23.48	0.489	7 0.31	4.22	-77.2	
1345	0.2	1.8	0.0		10.75	7.21	23.48	0487	0.33	4.20	-79.8	
1350	0.2	20	0.00	7 1	0.75	7.21	2343	0.489	1 0.32	4.18	-82.	2 NONE
				\dashv		<u> </u>						
				\perp								
			 	\perp								
			 	+			-					
ļ			<u> </u>	+					ļ		 	
WELL CAP	ACITY (Gallons	Per Foot): 0.7	/5" = 0.02	17	" = 0.04;	1.25" = 0.06	6; 2 " = 0.1	6; 3 " = 0	0.37; 4" = 0.65;	5" = 1.02; 6	6" = 1.47; 1	12" = 5.88
	SIDE DIA. CAP				6; 3/16 "	= 0.0014;	1/4" = 0.002	26; 5/16				/8" = 0.016
SAMPLED	BY (PRINT) / AF	FILIATION:		SAM	PLER(S) S	SAMP	LING DA	ATA	T			
J. Gibson / 1	TtNÙS (Jre	- Inle	~	SAMPLING INITIATED AT:	1350	SAMPLING ENDED AT:	
PUMP OR T DEPTH IN V		12.7			PLE PUMP W RATE (m	nL per minute	150)	TUBING MATERIAL CO	DE: Teflon		191
FIELD DEC	ONTAMINATIO	N: Y (N)			D-FILTERE		FILT	ER SIZE:	μm	DUPLICATE:	γ (N
		CONTAINER					IPLE PRESE	RVATION		INTENDED		SAMPLING
SAMPLE ID CODE	1	MATERIAL	VOLU	JME	PRESEF E USE		TOTAL VO		FINAL pH	ANALYSIS AND METHOD		EQUIPMENT CODE
1	3	CG	40	ml	нс	L	NONE		<2	VOCs (BTEX MTBE)/8260	I .	RFPP
2	1	AG	11	L	NOI	NE	NONE		<u>-</u>	PAHs/8270	С	VT
3	2	AG	11	L	H₂S	.O₄	NONE		-	TRPH/FL-PF	RO	VT
			-		<u> </u>							
REMARKS:												
MATERIAL		AG = Amber G			Clear Glass;		olyethylene;		·· ·· · · · · · · · · · · · · · · · ·	Silicone; T = Te		Other (Specify)
SAMPLING/ EQUIPMEN		APP = After Peri AFPP = Reverse			B = Bail Pump;		e Bladder Pu w Method (Tu		ESP = Electric Sub ity Drain); VT	mersible Pump; = Vacuum Trap;		staltic Pump er (Specify)

NAME: For	AME: Former Bulk Tank Facilities (FBTF) LOCATION: NAVSTA Mayport /ELL NO: MPT-09-MW01S SAMPLE ID: MPT-09-MW01S-0408 DATE: 4/23/08													
WELL NO:	MPT-09-MW01	S			SAMPLE	ID: MPT-0	9-MW01S-040	18			DATE: 4/23/0	8		
						PUR	GING DA	TA					<u> </u>	
WELL	// l \ 	TUBING			1	CREEN INT		STAT	IC DEPT	Ή 11.2	PURGE PU			
	(inches): 2" UME PURGE:	DIAMETER (I			DEPTH:		to 18 feet	TO WATE	ATER (f	eet): 11.3	OR BAILE	R: Peri	staltic	
	if applicable)		•			gallons	_		•		6 = 1			
	T VOLUME PU	RGE: 1 EQUIF	PMENT V	OL. = 1	PUMP VOL	 -					TH) + FLOW CEL	L VOLI	UME	
(only fill out	if applicable)					gallons								
INITIAL PUR	MP OR TUBING	.	FINAL P	IIMP (OR TUBING		PURGIN	JG		PURGIN	-	TOTAL	L VOLUM	
DEPTH IN V		13.3			LL (feet):	13.3	INITIAT	ED AT:	1426	ENDED	AT: 1500	PURG	ED (gallo	ns): /· 3 6
TIME	VOLUME	CUMUL. VOLUME	PURG	iΕ	DEPTH TO	pН	TEMP.	COND	, [ISSOLVED	TURBIDITY		ORP	ODOR
TIME	PURGED (gallons)	PURGED (gallons)	RATE (gpm		WATER (feet)	(standard units)	(°C)	(μS/cm)	OXYGEN (mg/L)	(NTUs)		(mV)	(describe)
1426	0	O	0.0		11.35			_			_	+	_	
1451	1.0	1.0	0.0		11.35	7,24	24.36	0.56	6	0.69	0.74	13	7.7	None
1454	0.12	1.12	0.0		11.35	7.19	24.34	0.56		0.71	0.68		6.0	Nove
1457	0.12	1.24	0.0		11.35	7.10	1			0.71	0.70	$\overline{}$	\$ 22	usne
1500	0.12	1.36	0.0		11.35	7.10	2442	0.56		0.70	0.72		5.7	Nose
1322	0.10	1.36	\ <u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	-/	1 (ι, γ	172	5.50	-		+ 10.701	+-	· J · /	1002
				\dashv								+		
	<u>-</u>				-					· -		+		
				_								-		
			ļ <u>.</u>									+-	_	
			 	+					-			+		
			 	+		-			-		 	+		
WELL CAP	ACITY (Gallons	Per Foot): 0.7	'5 " = 0.02		" = 0.04:	1.25 " = 0.0	6: 2" = 0.1	6: 3 " =	= 0.37:	4 " = 0.65;	5 " = 1.02; 6)" = 1.4	l7· 12"	' = 5.88
TUBING INS	SIDE DIA. CAP	ACITY (Gal./Ft.): 1/8" =	0.000	6; 3/16 "	= 0.0014;	1/4" = 0.002	26; 5/1	6 ⁿ ≈ 0.0			= 0.010		= 0.016
SAMPLED	BY (PRINT) / AF	FILIATION:		SAM	PLEB(S) S	SAMP IGNATURES	LING DA	AIA					<u> </u>	
J. Gibson / T		, , <u>L</u> ,,,,,,,,,,,		O/ ((V)	. LLMO, O	De	- Dil			MPLING TIATED AT:	1500		PLING ED AT:	1520
PUMP OR T		13-3			PLE PUMP		15-6		TU	BING				73-0
DEPTH IN V	<u> </u>		$\overline{}$		<u>W_RATE (m</u> D-FILTERE	L per minute		ER SIZE:		TERIAL CO	DE: Teflon			
FIELD DECO	SAMPLE (N: Y (M)			tion Equipn						DUPLICATE:	Y		<i></i>
		FICATION					MPLE PRESE	RVATION	·		INTENDED	_		MPLING
SAMPLE ID CODE	# CONTAINER	MATERIAL CODE	VOL	JME	PRESER		TOTAL VO			NAL	ANALYSIS AND METHOD	OR		UIPMENT CODE
	+				USI	<u> </u>		.U (IIIL)	P	oH	VOCs (BTEX	,		
1	3	CG	40	ml	НС		NONE			2	MTBE)/8260		I	RFPP
2	1	AG	1	L	NO	NE	NONE			-	PAHs/8270			VT
3	2	AG	1	L	H₂S	6O ₄	NONE			-	TRPH/FL-PF	10		VT
REMARKS:	•	•	•			<u>.</u>								
											<u>_</u>			
MATERIAL		AG = Amber C			Clear Glass;		olyethylene;		olypropy		Silicone; T = Te			er (Specify)
SAMPLING/ EQUIPMENT		APP = After Peri FPP = Reverse			B = Bai Pump;		P = Bladder Pu aw Method (Ti				mersible Pump; = Vacuum Trap;		= Peristal = Other (

SITE NAME: For	mer Bulk Tank	Facilities (FB1	ΓF)		1	SITE LOCATION:	NAVST	A Mayport				
WELL NO:	MPT-16-MW02	s		SAMPLE	ID: MPT- F	F-MW07-040			DATE: 4/24/08	8		
					PURC	GING DA	TA		1			
WELL DIAMETER	(inches): 3"	TUBING DIAMETER (ir	nohoo\: 2/16'	_	CREEN INTI	ERVAL to 15 feet		C DEPTH ATER (feet): 【ペーム	PURGE PU	IMP TYPE		
WELL VOLU	ME PURGE:						TO WATER	R) X WELL CAP	ACITY	r: Peristantic		
only fill out i	f applicable)		25	0.7	_gallons	Ci	5-10	50)X0	16			
EQUIPMEN (only fill out i		RGE: 1 EQUIP	MENT VOL.	= PUMP VOL	.UME + (TUE	BING CAPAC	ITY X	TUBING LENG	TH) + FLOW CELL	LVOLUME		
(0.11)	. арричалој				_gallons							
INITIAL PUN DEPTH IN V	MP OR TUBING VELL (feet):	12.5	FINAL PUM DEPTH IN V		, 15%	PURGIN	IG ED AT: /	PURGING ENDED		TOTAL VOLUM PURGED (gallo		
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	I DYVGEN	TURBIDITY (NTUs)	ORP (mV)	ODOR (describe)	
1000	0	0	0.04	10.49		1.7						
1020	0.8	0.8	0.04	10.49	7.45	2212	0.35	1 3,44	3-38	40.8	None	
1025	0.2	1.0	0.04	10.49	7.46	22.24	0.34	9 3.45	3,01	43.1	More	
1028	10.12	1-12	0.04	10.49	7.40	22.26	0.34	8 3.30	2.84	45.0	None	
1031	0.12	1.24	0.04	10.49	7.40	22.21	0.347	7 3.32	2,88	46.7	none	
1034												
1037												
1040	0.12	1.60	0.04	10.49	7.44	22.20	0.340	1 3.27	2.80	52.4	Nove	
					:							
								 		ļ		
WELL CAPA	ACITY (Gallons	Per Foot): 0.7	5 " = 0.02:	1" = 0.04;	1.25" = 0.0	6; 2 " = 0.1	6: 3 " =	0.37; 4 " = 0.65;	5" = 1.02; 6	" = 1.47; 12	' = 5.88	
TUBING INS	IDE DIA. CAPA	ACITY (Gal./Ft.)	: 1/8" = 0.0	006; 3/16 "		1/4" = 0.002 LING DA	26; 5/10		,		= 0.016	
	Y (PRINT) / AF	FILIATION:	SA	MPLER(S) S		S:	0 50	0.1151.110				
J. Gibson / T	tNUS					Doc .	Sul	SAMPLING INITIATED AT:	1040	SAMPLING ENDED AT:	1100	
PUMP OR T DEPTH IN W		12.5	C 1	MPLE PUMP OW RATE (m		15	0	TUBING MATERIAL CO	DE: Teflon			
FIELD DECC	ONTAMINATION	N: Y (N)	FII	ELD-FILTERE tration Equipn	D: Y (ER SIZE:	μm	DUPLICATE:	Y (N	$\overline{}$	
		CONTAINER				APLE PRESE	RVATION		INTENDED			
SAMPLE ID	#	MATERIAL	\\(\text{O} \\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	PRESE		TOTAL VO	DL T	FINAL	INTENDED ANALYSIS AND	OR EQ	AMPLING UIPMENT	
CODE	CONTAINER	RS CODE	VOLUME	USI		DDED IN FIEL		pН	METHOD		CODE	
1	3	CG	40 ml	но)L	NONE		<2	VOCs (BTEX MTBE)/8260	I	RFPP	
2	1	AG	1 L	NO	NE	NONE		-	PAHs/82700	;	VT	
3	2	AG	1 L	H₂S	6O ₄	NONE		-	TRPH/FL-PR	0	VT	
									<u>_</u>			
REMARKS:												
HEMANNO.												
MATERIAL (CODES:	AG = Amber G	ilass; CG =	= Clear Glass;	PE = Po	olyethylene;	PP = Pc	lypropylene; S =	Silicone; T = Te	flon; O = Otl	ner (Specify)	
SAMPLING/I EQUIPMENT		PP = After Peris				= Bladder Pu aw Method (T		ESP = Electric Sub	mersible Pump; = Vacuum Trap;	PP = Perista O = Other (
						· · · · · · · · ·						

NAME: For	mer Bulk Tank	Facilities (FB	TF)				SITE LOCATION:	NAVSTA	Mayport			
WELL NO:	MPT-16-MW03	s			SAMPLE	ID: MPT-1	6-MW03S-040	8		DATE: 4/24/	08	
						PUR	GING DA	TA				
WELL	(i==h==\). 08	TUBING		<i></i>		CREEN INT			DEPTH	PURGE P	UMP TYPE	
DIAMETER WELL VOLU		DIAMETER (i	Inches): 34 JME = (To	OTAL	DEPTH:	teet 5	to 15 feet	OWATER	TER (feet): [0.5]	OR BAILE	R: Peristalti	<u> </u>
only fill out i	if applicable)		(A -7	gallons			20) K.I			
EQUIPMEN	T VOLUME PU	RGE: 1 EQUIP	MENT V	OL. =			BING CAPAC	TY X	TUBING LENG	TH) + FLOW CE	LL VOLUME	
(only fill out i	п аррисавіе)			_		gallons						
INITIAL PUN DEPTH IN W	MP OR TUBING VELL (feet):	13			OR TUBING	13	PURGIN	G ED AT: L	PURGIN ENDED	G AT: 1129	TOTAL VO	LUME gailons): 1.26
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURG RATE (gpm	=	DEPTH TO WATER (feet)	pH (standard units)	TEMP	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	T	ODOR (describe)
1100	0	0	0.0	4 1	0.90	7.10	23.09	0.600	0.79	0.99	48.	5 NONE
1120	0.8	08	004	(0.90	7.09	23.25	0.60	3 0-57	0.80	73.1	More
1123	0-12	0.92	0.04	<i>t</i> 1	0.90	7.09	22.39	0.60	5 0.60	0.62	28	7 more
1126	0.12	1.04	2.00	1 1	0.90	7.09	23.34	0.60	5 0-63	0.56	28.	more
1129	0.12	1.16	0.0	41	0.90	7.09	23.38	0.60	5 0.62	0.47	28.	o None
			-	+					<u> </u>	_		
			-	-+			<u> </u>			<u></u>		
			ļ	+			 -			 		
	ACITY (Gallons				' = 0.04;	1.25" = 0.0)6; 2" = 0.1	6; 3 " = 0	0.37; 4" = 0.65;	5" = 1.02;	6" = 1.47;	12" = 5.88
TUBING INS	SIDE DIA. CAP	ACITY (Gal./Ft.)): <u>1/8" =</u>	0.000	6; 3/16 "	= 0.0014;	1/4" = 0.002 PLING DA		s" = 0.004; 3/8"		= 0.010;	5/8" = 0.016
SAMPLED B	Y (PRINT) / AF	FILIATION:	T	SAMI	PLER(S) SI			NIA.	1		Τ	
J. Gibson / Ti	tNUS					mc 20.			SAMPLING INITIATED AT:	1129	SAMPLIN ENDED A	
PUMP OR TO DEPTH IN W		13	3		PLE PUMP V RATE (m				TUBING MATERIAL CO	-		
	ONTAMINATION	N: Y (N)	,	FIEL	D-FILTERE	D: Y		ER SIZE:		DUPLICATE:	Y	
		CONTAINER	1		- Equipm		MPLE PRESE	RVATION				
SAMPLE ID	#	MATERIAL	1		PRESER	IVATIV	TOTAL VO	-	FINAL	INTENDED ANALYSIS ANI	D/OR	SAMPLING EQUIPMENT
CODE	CONTAINER		VOLU	ME	USE		DDED IN FIEL	D (mL)	pH	METHOD		CODE
1	3	ca	40 (ml	нс	L	NONE		<2	VOCs (BTE MTBE)/826		RFPP
2	1	AG	11	L	NON	NE	NONE		-	PAHs/8270	C	VT
3	2	AG	11	L	H₂S	04	NONE		-	TRPH/FL-PI	RO	VT
			 									
REMARKS:		_1	<u> </u>		<u></u>							
	Collecter	1 45/	ار د سه ا	,								
MATERIAL C		AG = Amber G	alass; C	:G = C	lear Glass;	PE ≈ P	olyethylene;	PP = Po	lypropylene; S =	Silicone; T = T	eflon; O :	Other (Specify)
CAMPI INCI	AMPLING/PURGING APP = After Peristaltic Pump; B = Bailer, BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump QUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)											

SITE NAME: For	NAME: Former Bulk Tank Facilities (FBTF) LOCATION: NAVSTA Mayport													
WELL NO:					SAMPLE	ID: FF-MW					DATE: 4/24/0)8		
						PUR	GING DA	TA	-			_		
WELL	(inches), 0#	TUBING	\. 0	401	1	CREEN INT			TIC DEP	1 1	PURGE PI			
	(inches): 2" UME PURGE:	DIAMETER (ii 1 WELL VOLU				4.96 to 1 TH - STA			VATER (I			H: Perista	altic	
only fill out	if applicable)				0.6	_gallons	(44	6-	10.54) x o.,	16		
	T VOLUME PU	RGE: 1 EQUIP	MENT V	OL. = F	PUMP VOL	UME + (TUI				BING LENG	iTH) + FLOW CEL	L VOLUN	ΛE	
(Only lin out	п аррпсаріе)			_		_gallons								
INITIAL PUI DEPTH IN V	MP OR TUBING WELL (feet):	12.5			OR TUBING LL (feet):	12.5	PURGIN	IG ED AT:	1110	PURGIN ENDED	G AT: 1134	TOTAL \	/OLUM O (gallo:	E ns): D.96
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURG RATE (gpm		DEPTH TO WATER (feet)	pH (standard units)	TEMP.	CON (µS/ci	D.	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	OF (m		ODOR (describe)
1110	0	0	0.00		10.54		_							_
1125	0.6	0.6	0.0	-	10,54	6.17	22.76	0.66	6	0.23	1.84	-13	5.9	None
1128	0.12	0.72	0.0	4	10.54	6.97	22.68	0-60	66	0-23	1.82	-13	3.6	rone
1131	0.12	0.84	0.0	4 1	0.54	6.95	22.65	0.60	65	0.21	1.29	-13	1-9	None
1134	0.12	0.96	0.0	41	0.54	6.95	2263	0.60	65°	0.20	1.13	-13	2.8	pore
				+		_								
 				+								+		
			-	+					\perp	-				
	ACITY (Gallons				' = 0.04;	1.25 " = 0.0	6; 2 " = 0.1	6; 3 "	≈ 0.37;	4" = 0.65;	5" = 1.02;	<u> </u> 5 " = 1.47;	12"	= 5.88
TUBING INS	SIDE DIA. CAPA	ACITY (Gal./Ft.)): 1/8 <u>"</u> =	0.0006	6; 3/16 "	= 0.0014;	1/4" = 0.002 PLING DA		16" = 0.0	004; 3/8"	= 0.006; 1/2"	= 0.010;	5/8"	= 0.016
	BY (PRINT) / AF	FILIATION:		SAMI	PLER(S) S	IGNATURES		117						
J. Gibson / T	FtNUS					Anc	27:0	,		MPLING ITIATED AT:	1134	SAMPL ENDED	.ING) AT:	1155
PUMP OR T DEPTH IN V		12.5	- 1		PLE PUMP	L per minute	a). 15	50		JBING	DE: Teflon	1		
	ONTAMINATIO		,	FIELI	D-FILTERE	:D: Y (ER SIZE		µт С	DUPLICATE:	Υ Υ	N)
		CONTAINER	1	rilliai	tion Equipn		MPLE PRESE	RVATIO	N					
SAMPLE ID		MATERIAL			PRESE	VITAVE	TOTAL VO			NAL	INTENDED ANALYSIS AND		EQI	MPLING JIPMENT
CODE	CONTAINER		VOLU	JME ———	USI		DDED IN FIEL			oH .	METHOD			CODE
1	3	CG	40	ml	нс)L	NONE			<2	VOCs (BTE) MTBE)/8260		F	RFPP
2	1	AG	1	L	NO	NE	NONE			-	PAHs/8270	С		VT
3	3 2 AG 1 L H ₂ SO ₄ NONE - TRPH/FL-PRO VT													
													_	
DEMARKS														
REMARKS:														
MATERIAL	CODES:	AG = Amber G	Glass; (G = 0	lear Glass;	PE = Po	olyethylene;	PP =	Polyprop	ylene; S =	Silicone; T = T	eflon; (0 = Oth	er (Specify)
SAMPLING/ EQUIPMEN		APP = After Peri FPP = Reverse			B = Bai Pump;		e Bladder Pu W Method (T		ESP = avity Dra	Electric Sub in); VT	mersible Pump; = Vacuum Trap;			tic Pump Specify)

SITE NAME: For	rmer Bulk Tank	Facilities (FB	TF)				SITE LOCATION:	NAVSTA	Mayport			
WELL NO:	MPT-09-MW02	S			SAMPLE	ID: MPT-0	9-MW02S-040			DATE: 4/24/08)	
						PUR	GING DA	TA				
WELL	(inches): 2"	TUBING		M 611	1	CREEN INT			DEPTH	PURGE PU		
		DIAMETER (i	ncnes): 3	OTAL	DEPTH:		to 15 feet	TOWATER	TER (feet): [] . Uf	O OR BAILER	: Peristaltic	
only fill out	if applicable)		,,,		0.6	gallons	(15		ره يو (م			
EQUIPMEN	IT VOLUME PU	RGE: 1 EQUIP	MENT V	OL. =	PUMP VOL	UME + (TUE	BING CAPACI	TY X	TUBING LENGT	TH) + FLOW CELL	VOLUME	
(Only in out	if applicable)					galions						
INITIAL PUI	MP OR TUBING	ا سے ما	FINAL P	UMP (OR TUBING	3	PURGIN	IG .	PURGING	1 1 1	TOTAL VOLUM	AF
DEPTH IN \	WELL (feet):	13-5 CUMUL.	DEPTH	IN WE	LL (feet): DEPTH	13.5	INITIATI	D AT:	:30 ENDED A	T: 1254	PURGED (gailo	ons): 0.26
TIME	VOLUME PURGED	VOLUME PURGED	PURG		TO WATER	pH (standard	TEMP.	COND. (µS/cm)	DISSOLVED OXYGEN	TURBIDITY (NTUs)	ORP (mV)	ODOR (describe)
4, 2	(gallons)	(gallons)	(gpm	-	(feet)	units)			(mg/L)		<u> </u>	(describe)
1230	0	0	0.04		11.40	6.87	24.40	1.125	 	2.85	-926	none
1245	0,6	0.6	0.00		11.41	6.77	24.31	1.108	 	2.02	- 106.9	NON
1248	0.12	0.72	0.00	_	11.41	6.77	24.05	1.09		1.68	-107.7	Nom
1251	0.12	0.84	0.00		11.41	676	23.99	1.095		1.09	-108.3	rome
1254	0.12	0-96	0.00	1	11.41	6.76	23.96	1.093	0.56	1-01	-108.6	Nore
						<u> </u>			<u> </u>			
									<u> </u>			
											<u> </u>	
WELL CAD	AOITY (Callege	Day Facely 67	FIL 0.00			4			<u> </u>			
TUBING INS	ACITY (Gallons SIDE DIA. CAP	ACITY (Gal./Ft.)	5" = 0.02 1: 1/8" =	0.000	' = 0.04; 6; 3/16"	1.25" = 0.0 = 0.0014;	6; 2" = 0.1 1/4" = 0.002					' = 5.88 ' = 0.016
CAMPLED	V (DDINT) / AE	TH IATION.			D. == (0) 0		LING DA	ATA				
J. Gibson / T	BY (PRINT) / AF NUS	FILIATION:		SAM	PLEH(S) SI	GNATURES	: Dibn		SAMPLING INITIATED AT:	1154	SAMPLING	12.
PUMP OR T	UBING	10		SAM	PLE PUMP				TUBING	(43-1	ENDED AT:	1315
DEPTH IN V		13.	>		V RATE (m D-FILTERE	L per minute		ER SIZE:	MATERIAL COL	DE: Teflon		
FIELD DEC	ONTAMINATIO	N: Y (N)			tion Equipm		<u> </u>	EN OIZE	MII	DUPLICATE:	YN	2
		CATION					APLE PRESE	RVATION		INTENDED		MPLING
SAMPLE ID CODE	# CONTAINER	MATERIAL CODE	VOLU	JME	PRESER E USI	Ar	TOTAL VO		FINAL pH	ANALYSIS AND/ METHOD		UIPMENT CODE
1	3	CG	40	mi	HC		NONE		<2	VOCs (BTEX		RFPP
2	1	AG	11		NOI	NE	NONE		•	MTBE)/8260E PAHs/8270C	³	VT
3	2	AG	11	L	H₂S	04	NONE		-	TRPH/FL-PR	 _	VT
REMARKS:												
MATERIAL	CODES:	AG = Amber G	ilass; C	G = C	lear Glass;	PE = Po	lyethylene;	PP = Poly	/propylene; S = S	Silicone; T = Tel	flon; Q = Oth	ner (Specify)
SAMPLING/ EQUIPMENT		PP = After Peris FPP = Reverse			B = Bai	er; BP	= Bladder Pu	mp; E	SP = Electric Subn	nersible Pump;	PP = Perista	ltic Pump
EQUIPMEN	OUDES: K	rrr = neverse	Flow Per	SCAPUC	rump;	om = Stra	w Method (Tu	ioing Gravit	y urain); VT =	Vacuum Trap;	O = Other ((Specify)

SITE NAME: Former Bulk Tank Facilities (FBT)	F)		SITE LOCATION: N	AVSTA Mayport		
WELL NO: MPT-09-MW03S		SAMPLE ID: MPT-0	9-MW03S-0408		DATE: 4/24/08	
		PUR	GING DATA	A	1	
WELL TUBING DIAMETER (inches): 2" DIAMETER (inches)			to 15 feet	STATIC DEPTH 9.6		
WELL VOLUME PURGE: 1 WELL VOLUM only fill out if applicable)	ME = (TOTAL	O.9 gallons		NATER) X WELL CAPA -9.60) X 0.16		
EQUIPMENT VOLUME PURGE: 1 EQUIPM (only fill out if applicable)	MENT VOL. =	PUMP VOLUME + (TU	BING CAPACITY	X TUBING LENGT	H) + FLOW CELL VC	LUME
		gallons				
DEPTH IN WELL (feet):	FINAL PUMP (LL (feet): 1 (. 6	PURGING INITIATED	AT: 1315 PURGING ENDED AT	: 1347 TOT PUR	AL VOLUME RGED (gallons): 1,28
TIME VOLUME VOLUME PURGED PURGED (gallons) (gallons)	PURGE RATE (gpm)	DEPTH pH TO (standard units)		COND. DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP ODOR (mV) (describe)
1315 0 0	0.04	9.60 -			_	
1338 p. 92 0.92	0.04	9.60 6.96	23.38 a.	.654 0.26	2,89 -	-0.4 NOM
1341 0-12 1-04	0.04	9.60 6.96	23-36 n.	.653 0.28	269 -	-1-3 more
1344 0.12 1-16	0.04	2.60 6.97	23.32 0	.653 0.25	2.42 -	2.54 NON
1347 0.12 1.28	004	9.60 6.96	23.340	0.653 0.24	2.38 -	-2.4 NOM
WELL CAPACITY (Gallons Per Foot): 0.75 TUBING INSIDE DIA. CAPACITY (Gal./Ft.):		" = 0.04; 1.25 " = 0.0 6; 3/16 " = 0.0014;	6; 2" = 0.16; 1/4" = 0.0026;	3" = 0.37; 4" = 0.65; 5/16" = 0.004; 3/8" =	5 " = 1.02; 6 " = 1 0.006; 1/2 " = 0.0	
		SAMP	LING DAT	A		
SAMPLED BY (PRINT) / AFFILIATION: J. Gibson / TtNUS	SAM	IPLĒR(S) SIGNATURES	s:	SAMPLING INITIATED AT:		MPLING DED AT: 1410
PUMP OR TUBING DEPTH IN WELL (feet):		IPLE PUMP W RATE (mL per minute	150	TUBING MATERIAL COD	E: Toffon	
FIELD DECONTAMINATION: Y (N)	FIEL	D-FILTERED: Y		SIZE: um	DUPLICATE: Y	(N)
SAMPLE CONTAINER		tion Equipment Type:	MPLE PRESERVA			T
SPECIFICATION SAMPLE ID # MATERIAL		PRESERVATIV			INTENDED ANALYSIS AND/OR	SAMPLING EQUIPMENT
SAMPLE ID # MATERIAL CODE CONTAINERS CODE	VOLUME	E USED AI	TOTAL VOL DDED IN FIELD (r	FINAL	METHOD	CODE
1 3 CG	40 ml	HCL	NONE	<2	VOCs (BTEX + MTBE)/8260B	RFPP
2 1 AG	1 L	NONE	NONE	-	PAHs/8270C	VT
3 2 AG	1 L	H₂SO₄	NONE	-	TRPH/FL-PRO	VT
		-				
REMARKS:		<u> </u>				
MATERIAL CODES: AG = Amber Gla	ass; CG = C	Clear Glass; PE = Pe	olyethylene; Pi	P = Polypropylene; S = S	ilicone; T = Teflon;	O = Other (Specify)
SAMPLING/PURGING APP = After Perist EQUIPMENT CODES: RFPP = Reverse F			e Bladder Pump; aw Method (Tubin)			P = Peristaltic Pump O = Other (Specify)



CHAIN OF CUSTODY

NUMBER

26342

PAGE OF

PROJ	ECT NO:	FACILITY:	COTO	PROJI	ECT MA	NAGER		PH	ONE NL	MBER	1130	_ L			NAME A	ND CO	NTACT:	
SAME	PLERS (SI	GNATURE)	FBIF	FIELD	OPER	ATIONS	LEADER	PH	ONE NU	MBER	-0103) A	DDRES	E~	Co		- 1 - 1 1 - 11 - 1	
	•					ibsol			124)						Xrcu	tive	Park Ct.	54.21
	0.0	91:0					NUMBER	101	10.7			C	ITY, ST	ATE			,	
	Joe	Libson		D	ges	PEF	0000		100				Jec	Ksol	ville	FL	32216	
										AINER	TYPE or GLAS	is (G)		5/	7	6/	///	
STAN	IDARD TA	Τ Ø				Ö,					-					/	///	
☐ 24	hr.	48 hr. 72 hr. 7 day 1	4 day			١٠			USED	***************************************	180,000	/	W/	-/.	×3"/		///	/ /
DATE 200 %	TIME	SAMPLE ID	LOCATION ID	тор Бертн (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, ETC.)	COLLECTION METHOD GRAP (G)	No. OF CONTAINERS	PRESUSED	S. MALL	\$ (06 (0 k)	200		10			COMMEN	75
4/22		MPT-FF- Tripblant				QC	6	3	X		ÍΠÍ				ÍΠ		Cool to	1 00
		MPT-08-MW125-0408				GW	+ ,	6	X	X	X						C 801 10	<i>T</i>
	200000	MPT-09-MWOIS-0408				64	G	6	X	X	X							
	1042	MPT-FF-MW07-0408			1	Gw	1	6	x	X	X							
				+	1	Gw	6	-	X	_								
	1	MPT-16-MW035-0408		-	1	-	+ -	6		X	X							
100		MPT-16-MW 035-2408-AS				00	+	6	×	×	X						MS	
P.C	1129	MPT-16-MW035-04.4-MSI	b	1	ļ	QC.	6	6	×	X	X						MSD	
А	1134	MPT-FF-MW08-2408				aw	6	6	X	X	X							
ŧ,	1254	MPT-09-MWO25-0408				GW	6	6	K	×	X							-W-256 -5 WW
		MPT-09-MW035-408				Gw	6	6	X	X	×							
000000000000000000000000000000000000000		MPT-16-F81-0458				QC	6	6	X	X	Х	7 (1)					706#	
																	CTO 3	1
																	Fuel Fa	ar m
1. RE	LINQUISH	ED BY Joe Da		DATE	12011	28	16 44 16 44	1. R	CEIVE	BY	^^			पा	24	108	164 W	
2. RE	LINQUISH	ED BY		DATE	241	1	TIME	2. R	ECEIVE	ВУ					<u>a,</u>	DAT		
3. RE	LINQUISH	ED BY		DATE		1	TIME	3. RI	ECEIVE	BY			A			DAT	TE TIME	
COMMENTS																		



DOCUMENTATION OF FIELD CALIBRATION

PROJECT NAME : NAVSTA Mayport INSTRUMENT NAME/MODEL: YSI 556 / LaMotte 2020

SITE NAME: FBTF MANUFACTURER: YSI / LaMotte

PROJECT No.: 112G00412 SERIAL NUMBER: 04J15531 / ME-11937

Date of Calibration	Instrument Name and Model	Instrument I.D. Number	Person Performing Calibration	Instrument Pre- calibration	Settings Post- calibration	Instrument Pre- calibration	Readings Post- calibration	Calibration Standard (Lot No.)	Remarks and Comments
4/23/08	YSI	04115571	J.6.			6-98	7.0	4303516	pH 7
11	11	t.c	11	 		9.86	10.0	2708587	pH10 Cond. DRP
11	11	tı	11			1.302	1.43	6126	Cond.
lc	(t	U	A			238.2	240	62643	ORP
6.	2020	ME-11937	11			9.8	10.0		10 NTU
1		u	Lſ			0.28	0.00	- همینی	10 NTU
4/24/08	43I	04015571	l (6.99	7.0	4807516	p#7
lı .	l _e	10	li			9.96	6.0	2708587	p# 10
rc	1(11	и			1,398	1.413	6126	p# 10 Crd
ιί	<i>[</i> [Ħ	lı			239.4	240	62643	ORP
((ME-11957	"(9.9	10.0	1	10 24
						0,0	0,0	_	0 N 7 U
			<u></u> :						

APPENDIX C

LABORATORY ANALYTICAL REPORT

08JAX00097 CTO 0031

Environmental Conservation Laboratories, Inc.

4810 Executive Park Court, Suite 211
Jacksonville FL, 32216-6069

Phone: 904.296.3007 FAX: 904.296.6210



Thursday, May 1, 2008

Tetra Tech NUS (BR006)

Attn: Mark Peterson

8640 Philips Highway Suite 16

Jacksonville, FL 32256

RE: Laboratory Results for

Project Number: 112G00412, Project Name/Desc: Mayport Fuel Farm

ENCO Workorder: B802812

Dear Mark Peterson,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, April 24, 2008.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Jacksonville. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Lorraine Strong

Project Manager

Enclosure(s)



CASE NARRATIVE

Tetra Tech NUS, Inc/Mayport Fuel Farm, CTO 031 Project Manger Mr. Mark Peterson SDG BR006-031

Lab Sample ID	Client Sample ID
B802812-01	MPT-FF-Trip Blank Cooler J199
B802812-02	MPT-FF-Trip Blank Cooler LB5
B802812-03	MPT-FF-Trip Blank Cooler C3
B802812-04	MPT-08-MW12S-0408
B802812-05	MPT-09-MW01S-0408
B802812-06	MPT-FF-MW07-0408
B802812-07	MPT-16-MW03S-0408MS/MSD
B802812-08	MPT-FF-MW08-0408
B802812-09	MPT-09-MW02S-0408
B802812-10	MPT-09-MW03S-0408
B802812-11	MPT-16-FBI-0408

Overview

All samples submitted were analyzed by Environmental Conservation Laboratories, Inc. in accordance with the methods referenced in the laboratory report. Sample MPT-16-MW03S-0408 [B802812-07] was the designated matrix spike/matrix spike duplicate. Any particular difficulties encountered during sample handling and processing will be discussed in the Remarks section below.

Remarks

EPA Method 8260B

The laboratory received two additional Trip blanks with this project; however, these samples were not listed on the chain of custody.

Lorraine Strong Project Manager



SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID:	MPT-FF-Trip Blank Cooler J199	Lab ID: B802812-01	Sampled:	04/23/08 00:00	Received:	04/24/08	16:44
Parameter	Hold Date/Time(s)	Prep Date/1	Time(s)	Analysis D	ate/Time(s)		
EPA 8260B	05/07/08	04/30/08	09:42	4/30/2008	15:42		

Client ID:	MPT-FF-Trip Blank Cooler LB5	Lab ID: B802812-02	Sampled:	04/23/08 00:00	Received: 04/24/08 16:44
Parameter	Hold Date/Time(s)	Prep Date/1	ime(s)	Analysis Date/	/Time(s)
EPA 8260B	05/07/08	04/30/08	09:42	4/30/2008 16:1	5

Client ID:	MPT-FF-Trip Blank Cooler C3	Lab ID: B802812-03	Sampled:	04/23/08 00:00	Received: 04/24/08 16:44
Parameter	Hold Date/Time(s)		Prep Date/Time(s)	Analysis Date/	/Time(s)
EPA 8260B	05/07/08		04/30/08 09:42	4/30/2008 16:4	18

Client ID:	MPT-08-MW12S-0408	Lab ID: B802812-04		Sampled:	04/23/08 13:50	Received: 04/24/08 16:44
Parameter	Hold Date/Time(s)		Prep Date/	Time(s)	Analysis Date/	Time(s)
EPA 8260B	05/07/08		04/30/08	09:42	4/30/2008 17:2	1
EPA 8270C	04/30/08	06/07/08	04/28/08	12:34	4/29/2008 00:19	9
FLPRO	04/30/08	06/07/08	04/28/08	12:36	4/28/2008 18:55	5

Client ID:	MPT-09-MW01S-0408	Lab ID: B802812-05		Sampled: 04/23/0	8 15:00	Received: 04/24/08 16:44
Parameter	Hold Date/Time(s)		Prep Date/	Time(s)	Analysis Date/	Time(s)
EPA 8260B	05/07/08		04/30/08	09:42	4/30/2008 17:5	4
EPA 8270C	04/30/08	06/07/08	04/28/08	12:34	4/29/2008 00:4	0
FLPRO	04/30/08	06/07/08	04/28/08	12:36	4/28/2008 19:1	9

Client ID:	MPT-FF-MW07-0408		Lab ID: B802812-06		Sampled: 04/24/08	10:40	Received:	04/24/08 16:44
Parameter		Hold Date/Time(s)		Prep Date/	Time(s)	Analysis Date/	Time(s)	
EPA 8260B		05/08/08		04/30/08	09:42	4/30/2008 18:27	7	
EPA 8270C		05/01/08	06/07/08	04/28/08	12:34	4/29/2008 01:01	l	
FLPRO		05/01/08	06/07/08	04/28/08	12:36	4/28/2008 20:28	3	

Client ID:	MPT-16-MW03S-0408MS/MSD	Lab ID: B802812-07		Sampled:	04/24/08 11:29	Received: 04/24/08 16:44
Parameter	Hold Date/Time(s)	Prep Date/	Time(s)	Analysis Date/	Time(s)
EPA 8260B	05/08/08		04/30/08	09:42	4/30/2008 15:0	8
EPA 8270C	05/01/08	06/07/08	04/28/08	12:34	4/29/2008 01:2	2
FLPRO	05/01/08	06/07/08	04/28/08	12:36	4/28/2008 18:3	2



Client ID:	MPT-FF-MW08-0408	Lab ID: B802812-08	Sampled:	04/24/08 11:34	Received: 04/24/08 16:44
Parameter	Hold Date/Time(s	5)	Prep Date/Time(s)	Analysis Date/	Time(s)
EPA 8260B	05/08/08		04/30/08 09:42	4/30/2008 19:0	0
EPA 8270C	05/01/08	06/07/08	04/28/08 12:34	4/29/2008 01:4	3
FLPRO	05/01/08	06/07/08	04/28/08 12:36	4/28/2008 20:5	1

Client ID:	MPT-09-MW02S-0408	Lab ID: B802812-09	Sam	npled: 04/24/08 1	L2:54	Received: 04/24/08 16:44
Parameter	Hold Date/Time(s)		Prep Date/Time	e(s)	Analysis Date/Ti	me(s)
EPA 8260B	05/08/08		04/30/08 09:4	42	4/30/2008 19:33	
EPA 8270C	05/01/08	06/07/08	04/28/08 12:3	34	4/29/2008 02:04	
FLPRO	05/01/08	06/07/08	04/28/08 12:3	36	4/28/2008 21:14	

Client ID:	MPT-09-MW03S-0408	Lab ID: B802812-10		Sampled: 04/24/08	3 13:47	Received: 04/24/08 16:44
Parameter	Hold Date/Time(s)		Prep Date/	Time(s)	Analysis Date/	Time(s)
EPA 8260B	05/08/08		04/30/08	09:42	4/30/2008 20:0	6
EPA 8270C	05/01/08	06/07/08	04/28/08	12:34	4/29/2008 02:2	5
FLPRO	05/01/08	06/07/08	04/28/08	12:36	4/28/2008 21:3	7

Client ID:	MPT-16-FB1-0408		Lab ID: B802812-11		Sampled:	04/24/08 14:35	Received: 04	4/24/08 16:44
Parameter		Hold Date/Time(s)		Prep Date/	Time(s)	Analysis Date/	Time(s)	
EPA 8260B		05/08/08		04/30/08	09:42	4/30/2008 20:39	9	
EPA 8270C		05/01/08	06/07/08	04/28/08	12:34	4/29/2008 02:46	6	
FLPRO		05/01/08	06/07/08	04/28/08	12:36	4/28/2008 22:00	0	



SAMPLE DETECTION SUMMARY

lient ID: MPT-08-MW12S-0408		Lab ID:	B802812-04			
Analyte	Results	Flag	PQL	Units	Method	Notes
TPH (C8-C40)	0.057	I	0.170	mg/L	FLPRO	
ient ID: MPT-09-MW01S-0408		Lab ID:	B802812-05			
Analyte	Results	Flag	PQL	Units	Method	Notes
TPH (C8-C40)	0.056	I	0.170	mg/L	FLPRO	
ient ID: MPT-FF-MW07-0408		Lab ID:	B802812-06			
Analyte	Results	Flag	PQL	Units	Method	Notes
TPH (C8-C40)	0.050	I	0.170	mg/L	FLPRO	
ient ID: MPT-16-MW03S-0408MS/MSD		Lab ID:	B802812-07			
Analyte	Results	Flag	PQL	Units	Method	Notes
TPH (C8-C40)	0.059	I	0.170	mg/L	FLPRO	
ient ID: MPT-FF-MW08-0408		Lab ID:	B802812-08			
Analyte	Results	Flag	PQL	Units	Method	Notes
Acenaphthene	0.03	I	0.10	ug/L	EPA 8270C	
Fluorene	0.03	I	0.10	ug/L	EPA 8270C	
Naphthalene	0.04	I	0.10	ug/L	EPA 8270C	
TPH (C8-C40)	0.155	I	0.170	mg/L	FLPRO	
ient ID: MPT-09-MW02S-0408		Lab ID:	B802812-09			
Analyte	Results	Flag	PQL	Units	Method	Notes
1-Methylnaphthalene	0.13		0.10	ug/L	EPA 8270C	
Acenaphthene	0.08	I	0.10	ug/L	EPA 8270C	
Fluorene	0.08	I	0.10	ug/L	EPA 8270C	
Naphthalene	0.10	I	0.10	ug/L	EPA 8270C	
TPH (C8-C40)	0.962		0.170	mg/L	FLPRO	
ient ID: MPT-09-MW03S-0408		Lab ID:	B802812-10			
Analyte	Results	Flag	PQL	Units	Method	Notes
TPH (C8-C40)	0.103	I	0.170	mg/L	FLPRO	
ient ID: MPT-16-FB1-0408		Lab ID:	B802812-11			
Analyte	Results	Flag	PQL	Units	Method	Notes
Naphthalene	0.03	I	0.10	ug/L	EPA 8270C	
Toluene	0.34	I	1.0	ug/L	EPA 8260B	
TPH (C8-C40)	0.143	I	0.170	mg/L	FLPRO	



ANALYTICAL RESULTS

Description: MPT-FF-Trip Blank Cooler J199 Lab Sample ID: B802812-01 Received: 04/24/08 16:44

Matrix: Ground Water **Sampled:** 04/23/08 00:00 **Work Order:** B802812

Project: Mayport Fuel Farm Sampled By:

Volatile Organic Compounds by GCMS

Aughte FOAC Noughout	D	FI	11-24-	D.F.	MDI	201	D-4-b	Markland	A Is	ъ.,	N-4
Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 15:42	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 15:42	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 15:42	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 15:42	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 15:42	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	53	1	50.0	106 %	80-	120	8D30017	EPA 8260B	04/30/08 15:42	JAL	
Dibromofluoromethane	<i>55</i>	1	50.0	110 %	70-	135	8D30017	EPA 8260B	04/30/08 15:42	JAL	
Toluene-d8	54	1	50.0	108 %	80-	120	8D30017	EPA 8260B	04/30/08 15:42	JAL	



Description: MPT-FF-Trip Blank Cooler LB5 Lab Sample ID: B802812-02 Received: 04/24/08 16:44

 Matrix: Ground Water
 Sampled: 04/23/08 00:00
 Work Order: B802812

Project: Mayport Fuel Farm Sampled By:

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	<u>Batch</u>	Method	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 16:15	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 16:15	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 16:15	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 16:15	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 16:15	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	53	1	50.0	107 %	80-	120	8D30017	EPA 8260B	04/30/08 16:15	JAL	
Dibromofluoromethane	54	1	50.0	107 %	70-	135	8D30017	EPA 8260B	04/30/08 16:15	JAL	
Toluene-d8	54	1	50.0	108 %	80-	120	8D30017	EPA 8260B	04/30/08 16:15	JAL	



Description: MPT-FF-Trip Blank Cooler C3 Lab Sample ID: B802812-03 Received: 04/24/08 16:44

 Matrix: Ground Water
 Sampled: 04/23/08 00:00
 Work Order: B802812

Project: Mayport Fuel Farm Sampled By:

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>Ву</u>	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 16:48	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 16:48	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 16:48	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 16:48	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 16:48	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	55	1	50.0	110 %	80-	120	8D30017	EPA 8260B	04/30/08 16:48	JAL	
Dibromofluoromethane	53	1	50.0	106 %	70-	135	8D30017	EPA 8260B	04/30/08 16:48	JAL	
Toluene-d8	<i>57</i>	1	50.0	114 %	80-	120	8D30017	EPA 8260B	04/30/08 16:48	JAL	



Description: MPT-08-MW12S-0408 **Lab Sample ID:** B802812-04 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/23/08 13:50Project:Mayport Fuel FarmSampled By: Joe Gibson

mpled: 04/23/08 13:50 Work Order: B802812

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	By	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 17:21	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 17:21	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 17:21	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 17:21	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 17:21	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	52	1	50.0	105 %	80-	120	8D30017	EPA 8260B	04/30/08 17:21	JAL	
Dibromofluoromethane	53	1	50.0	107 %	70-	135	8D30017	EPA 8260B	04/30/08 17:21	JAL	
Toluene-d8	<i>55</i>	1	50.0	109 %	80-	120	8D30017	EPA 8260B	04/30/08 17:21	JAL	



Description: MPT-08-MW12S-0408 **Lab Sample ID:** B802812-04 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/23/08 13:50Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Semivolatile Organic Compounds by GCMS SIM

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	Batch	<u>Method</u>	Analyzed	<u>By</u>	<u>Notes</u>
1-Methylnaphthalene [90-12-0]	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
2-Methylnaphthalene [91-57-6] ^	0.03	U	ug/L	1	0.03	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Acenaphthene [83-32-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Acenaphthylene [208-96-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Anthracene [120-12-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Benzo(a)anthracene [56-55-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Benzo(a)pyrene [50-32-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Benzo(b)fluoranthene [205-99-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Benzo(g,h,i)perylene [191-24-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Benzo(k)fluoranthene [207-08-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Chrysene [218-01-9] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Dibenzo(a,h)anthracene [53-70-3] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Fluoranthene [206-44-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Fluorene [86-73-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Naphthalene [91-20-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Phenanthrene [85-01-8] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Pyrene [129-00-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:19	PL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Red	Limits	Batch	Method	Analyzed	Ву	Notes
p-Terphenyl	4.2	1	5.00	84 %	53-	·132	8D28003	EPA 8270C	04/29/08 00:19	PL	



Description: MPT-08-MW12S-0408 **Lab Sample ID:** B802812-04 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/23/08 13:50Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

FL Petroleum Range Organics

Analyte [CAS Number] TPH (C8-C40) [NA] ^	<u>Results</u> 0.057	<u>Flag</u> I	<u>Units</u> mg/L	DF 1	MDL 0.042	PQL 0.170	Batch 8D28004	Method FLPRO	Analyzed 04/28/08 18:55	<u>By</u> PL	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
n-Nonatriacontane	0.0410	1	0.0500	82 %	<i>37</i>	189	8D28004	FLPRO	04/28/08 18:55	PL	
o-Terphenyl	0.0884	1	0.100	88 %	68	118	8D28004	FLPRO	04/28/08 18:55	PL	



Description: MPT-09-MW01S-0408 **Lab Sample ID:** B802812-05 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/23/08 15:00Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	<u>Batch</u>	Method	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 17:54	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 17:54	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 17:54	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 17:54	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 17:54	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	54	1	50.0	107 %	80-	120	8D30017	EPA 8260B	04/30/08 17:54	JAL	
Dibromofluoromethane	54	1	50.0	108 %	70-	135	8D30017	EPA 8260B	04/30/08 17:54	JAL	
Toluene-d8	55	1	50.0	109 %	80-	120	8D30017	EPA 8260B	04/30/08 17:54	JAL	



Description: MPT-09-MW01S-0408 **Lab Sample ID:** B802812-05 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/23/08 15:00Project:Mayport Fuel FarmSampled By: Joe Gibson

Received: 04/24/08 16:4 **Work Order:** B802812

Semivolatile Organic Compounds by GCMS SIM

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	Batch	<u>Method</u>	Analyzed	<u>By</u>	<u>Notes</u>
1-Methylnaphthalene [90-12-0]	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
2-Methylnaphthalene [91-57-6] ^	0.03	U	ug/L	1	0.03	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Acenaphthene [83-32-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Acenaphthylene [208-96-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Anthracene [120-12-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Benzo(a)anthracene [56-55-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Benzo(a)pyrene [50-32-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Benzo(b)fluoranthene [205-99-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Benzo(g,h,i)perylene [191-24-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Benzo(k)fluoranthene [207-08-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Chrysene [218-01-9] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Dibenzo(a,h)anthracene [53-70-3] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Fluoranthene [206-44-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Fluorene [86-73-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Naphthalene [91-20-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Phenanthrene [85-01-8] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Pyrene [129-00-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 00:40	PL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Red	Limits	Batch	Method	Analyzed	Ву	Notes
p-Terphenyl	4.3	1	5.00	86 %	53-	·132	8D28003	EPA 8270C	04/29/08 00:40	PL	



Description: MPT-09-MW01S-0408

Lab Sample ID: B802812-05

Sampled By: Joe Gibson

Received: 04/24/08 16:44

Matrix: Ground Water

Project: Mayport Fuel Farm

Sampled: 04/23/08 15:00

Work Order: B802812

FL Petroleum Range Organics

Analyte [CAS Number] TPH (C8-C40) [NA] ^	<u>Results</u> 0.056	<u>Flag</u> I	<u>Units</u> mg/L	DF 1	MDL 0.042	PQL 0.170	Batch 8D28004	Method FLPRO	Analyzed 04/28/08 19:19	<u>By</u> PL	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
n-Nonatriacontane	0.0448	1	0.0500	90 %	<i>37-1</i>	189	8D28004	FLPRO	04/28/08 19:19	PL	
o-Terphenyl	0.0942	1	0.100	94 %	68-1	18	8D28004	FLPRO	04/28/08 19:19	PL	



Description: MPT-FF-MW07-0408 **Lab Sample ID:** B802812-06 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 10:40Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	Batch	Method	<u>Analyzed</u>	By	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 18:27	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 18:27	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 18:27	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 18:27	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 18:27	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	54	1	50.0	108 %	80-	120	8D30017	EPA 8260B	04/30/08 18:27	JAL	
Dibromofluoromethane	54	1	50.0	108 %	70-	135	8D30017	EPA 8260B	04/30/08 18:27	JAL	
Toluene-d8	55	1	50.0	110 %	80-	120	8D30017	EPA 8260B	04/30/08 18:27	JAL	



Description: MPT-FF-MW07-0408 **Lab Sample ID:** B802812-06 Received: 04/24/08 16:44

Sampled: 04/24/08 10:40 Matrix: Ground Water **Project:** Mayport Fuel Farm Sampled By: Joe Gibson

Work Order: B802812

Semivolatile Organic Compounds by GCMS SIM

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Batch</u>	<u>Method</u>	Analyzed	<u>By</u>	<u>Notes</u>
1-Methylnaphthalene [90-12-0]	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
2-Methylnaphthalene [91-57-6] ^	0.03	U	ug/L	1	0.03	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Acenaphthene [83-32-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Acenaphthylene [208-96-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Anthracene [120-12-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Benzo(a)anthracene [56-55-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Benzo(a)pyrene [50-32-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Benzo(b)fluoranthene [205-99-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Benzo(g,h,i)perylene [191-24-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Benzo(k)fluoranthene [207-08-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Chrysene [218-01-9] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Dibenzo(a,h)anthracene [53-70-3] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Fluoranthene [206-44-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Fluorene [86-73-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Naphthalene [91-20-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Phenanthrene [85-01-8] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Pyrene [129-00-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:01	PL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Red	Limits	Batch	Method	Analyzed	Ву	Notes
p-Terphenyl	4.1	1	5.00	82 %	53-	132	8D28003	EPA 8270C	04/29/08 01:01	PL	



Description: MPT-FF-MW07-0408 **Lab Sample ID:** B802812-06 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 10:40Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

FL Petroleum Range Organics

Analyte [CAS Number] TPH (C8-C40) [NA] ^	<u>Results</u> 0.050	<u>Flag</u> I	<u>Units</u> mg/L	DF 1	MDL 0.042	PQL 0.170	Batch 8D28004	Method FLPRO	Analyzed 04/28/08 20:28	<u>By</u> PL	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
n-Nonatriacontane	0.0447	1	0.0500	89 %	<i>37-</i> i	189	8D28004	FLPRO	04/28/08 20:28	PL	
o-Terphenyl	0.0894	1	0.100	89 %	68-1	118	8D28004	FLPRO	04/28/08 20:28	PL	



Description: MPT-16-MW03S-0408MS/MSD **Lab Sample ID:** B802812-07 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 11:29Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	Batch	<u>Method</u>	Analyzed	By	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 15:08	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 15:08	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 15:08	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 15:08	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 15:08	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	53	1	50.0	106 %	80-	120	8D30017	EPA 8260B	04/30/08 15:08	JAL	
Dibromofluoromethane	55	1	50.0	109 %	70-	135	8D30017	EPA 8260B	04/30/08 15:08	JAL	
Toluene-d8	55	1	50.0	109 %	80-	120	8D30017	EPA 8260B	04/30/08 15:08	JAL	



Description: MPT-16-MW03S-0408MS/MSD **Lab Sample ID:** B802812-07 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 11:29Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Semivolatile Organic Compounds by GCMS SIM

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	DF	MDL	<u>PQL</u>	Batch	<u>Method</u>	Analyzed	By	<u>Notes</u>
1-Methylnaphthalene [90-12-0]	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
2-Methylnaphthalene [91-57-6] ^	0.03	U	ug/L	1	0.03	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Acenaphthene [83-32-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Acenaphthylene [208-96-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Anthracene [120-12-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Benzo(a)anthracene [56-55-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Benzo(a)pyrene [50-32-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Benzo(b)fluoranthene [205-99-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Benzo(g,h,i)perylene [191-24-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Benzo(k)fluoranthene [207-08-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Chrysene [218-01-9] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Dibenzo(a,h)anthracene [53-70-3] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Fluoranthene [206-44-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Fluorene [86-73-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Naphthalene [91-20-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Phenanthrene [85-01-8] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Pyrene [129-00-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:22	PL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
p-Terphenyl	4.1	1	5.00	83 %	53-	132	8D28003	EPA 8270C	04/29/08 01:22	PL	



Description: MPT-16-MW03S-0408MS/MSD **Lab Sample ID:** B802812-07 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 11:29Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

FL Petroleum Range Organics

Analyte [CAS Number] TPH (C8-C40) [NA] ^	<u>Results</u> 0.059	<u>Flag</u> I	<u>Units</u> mg/L	DF 1	MDL 0.042	PQL 0.170	Batch 8D28004	Method FLPRO	Analyzed 04/28/08 18:32	<u>By</u> PL	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
n-Nonatriacontane	0.0423	1	0.0500	85 %	<i>37-1</i>	189	8D28004	FLPRO	04/28/08 18:32	PL	
o-Terphenyl	0.0919	1	0.100	92 %	68-1	18	8D28004	FLPRO	04/28/08 18:32	PL	



Description: MPT-FF-MW08-0408 **Lab Sample ID:** B802812-08 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 11:34Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	Batch	<u>Method</u>	<u>Analyzed</u>	By	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 19:00	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 19:00	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 19:00	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 19:00	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 19:00	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	53	1	50.0	105 %	80-	120	8D30017	EPA 8260B	04/30/08 19:00	JAL	
Dibromofluoromethane	55	1	50.0	109 %	70-	135	8D30017	EPA 8260B	04/30/08 19:00	JAL	
Toluene-d8	55	1	50.0	109 %	80-	120	8D30017	EPA 8260B	04/30/08 19:00	JAL	



Description: MPT-FF-MW08-0408 **Lab Sample ID:** B802812-08 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 11:34Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Semivolatile Organic Compounds by GCMS SIM

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	Batch	<u>Method</u>	Analyzed	<u>By</u>	<u>Notes</u>
1-Methylnaphthalene [90-12-0]	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
2-Methylnaphthalene [91-57-6] ^	0.03	U	ug/L	1	0.03	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Acenaphthene [83-32-9] ^	0.03	I	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Acenaphthylene [208-96-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Anthracene [120-12-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Benzo(a)anthracene [56-55-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Benzo(a)pyrene [50-32-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Benzo(b)fluoranthene [205-99-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Benzo(g,h,i)perylene [191-24-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Benzo(k)fluoranthene [207-08-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Chrysene [218-01-9] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Dibenzo(a,h)anthracene [53-70-3] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Fluoranthene [206-44-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Fluorene [86-73-7] ^	0.03	I	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Naphthalene [91-20-3] ^	0.04	I	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Phenanthrene [85-01-8] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Pyrene [129-00-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 01:43	PL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Red	Limits	Batch	Method	Analyzed	Ву	Notes
p-Terphenyl	4.0	1	5.00	81 %	53-	·132	8D28003	EPA 8270C	04/29/08 01:43	PL	



Description: MPT-FF-MW08-0408 **Lab Sample ID:** B802812-08 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 11:34Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

FL Petroleum Range Organics

Analyte [CAS Number] TPH (C8-C40) [NA] ^	<u>Results</u> 0.155	<u>Flag</u> I	<u>Units</u> mg/L	DF 1	MDL 0.042	PQL 0.170	Batch 8D28004	Method FLPRO	Analyzed 04/28/08 20:51	<u>By</u> PL	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
n-Nonatriacontane	0.0461	1	0.0500	92 %	<i>37-1</i>	189	8D28004	FLPRO	04/28/08 20:51	PL	
o-Terphenyl	0.0868	1	0.100	87 %	68-1	118	8D28004	FLPRO	04/28/08 20:51	PL	



Description: MPT-09-MW02S-0408 **Lab Sample ID:** B802812-09 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 12:54Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	Batch	<u>Method</u>	Analyzed	By	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 19:33	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 19:33	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 19:33	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 19:33	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 19:33	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	52	1	50.0	105 %	80-	120	8D30017	EPA 8260B	04/30/08 19:33	JAL	
Dibromofluoromethane	54	1	50.0	108 %	70-	135	8D30017	EPA 8260B	04/30/08 19:33	JAL	
Toluene-d8	54	1	50.0	109 %	80-	120	8D30017	EPA 8260B	04/30/08 19:33	JAL	



Description: MPT-09-MW02S-0408 **Lab Sample ID:** B802812-09 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 12:54Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Semivolatile Organic Compounds by GCMS SIM

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	Batch	Method	Analyzed	By	<u>Notes</u>
1-Methylnaphthalene [90-12-0]	0.13		ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
2-Methylnaphthalene [91-57-6] ^	0.03	U	ug/L	1	0.03	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Acenaphthene [83-32-9] ^	0.08	I	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Acenaphthylene [208-96-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Anthracene [120-12-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Benzo(a)anthracene [56-55-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Benzo(a)pyrene [50-32-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Benzo(b)fluoranthene [205-99-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Benzo(g,h,i)perylene [191-24-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Benzo(k)fluoranthene [207-08-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Chrysene [218-01-9] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Dibenzo(a,h)anthracene [53-70-3] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Fluoranthene [206-44-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Fluorene [86-73-7] ^	0.08	I	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Naphthalene [91-20-3] ^	0.10	I	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Phenanthrene [85-01-8] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Pyrene [129-00-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:04	PL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
p-Terphenyl	3.7	1	5.00	74 %	53-	132	8D28003	EPA 8270C	04/29/08 02:04	PL	· · · · · · · · · · · · · · · · · · ·



Description: MPT-09-MW02S-0408 **Lab Sample ID:** B802812-09 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 12:54Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

FL Petroleum Range Organics

Analyte [CAS Number] TPH (C8-C40) [NA] ^	<u>Results</u> 0.962	<u>Flag</u>	<u>Units</u> mg/L	DF 1	MDL 0.042	PQL 0.170	Batch 8D28004	Method FLPRO	Analyzed 04/28/08 21:14	<u>By</u> PL	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
n-Nonatriacontane	0.0468	1	0.0500	94 %	<i>37-1</i>	189	8D28004	FLPRO	04/28/08 21:14	PL	
o-Terphenyl	0.0905	1	0.100	91 %	68-1	118	8D28004	FLPRO	04/28/08 21:14	PL	



Description: MPT-09-MW03S-0408 **Lab Sample ID:** B802812-10 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 13:47Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	<u>Batch</u>	<u>Method</u>	Analyzed	<u>Ву</u>	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 20:06	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 20:06	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 20:06	JAL	
Toluene [108-88-3] ^	0.28	U	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 20:06	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 20:06	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	54	1	50.0	107 %	80-	120	8D30017	EPA 8260B	04/30/08 20:06	JAL	
Dibromofluoromethane	54	1	50.0	108 %	70-	135	8D30017	EPA 8260B	04/30/08 20:06	JAL	
Toluene-d8	55	1	50.0	109 %	80-	120	8D30017	EPA 8260B	04/30/08 20:06	JAL	



Description: MPT-09-MW03S-0408 **Lab Sample ID:** B802812-10 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 13:47Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Semivolatile Organic Compounds by GCMS SIM

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	Batch	Method	Analyzed	By	<u>Notes</u>
1-Methylnaphthalene [90-12-0]	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
2-Methylnaphthalene [91-57-6] ^	0.03	U	ug/L	1	0.03	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Acenaphthene [83-32-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Acenaphthylene [208-96-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Anthracene [120-12-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Benzo(a)anthracene [56-55-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Benzo(a)pyrene [50-32-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Benzo(b)fluoranthene [205-99-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Benzo(g,h,i)perylene [191-24-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Benzo(k)fluoranthene [207-08-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Chrysene [218-01-9] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Dibenzo(a,h)anthracene [53-70-3] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Fluoranthene [206-44-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Fluorene [86-73-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Naphthalene [91-20-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Phenanthrene [85-01-8] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Pyrene [129-00-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:25	PL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
p-Terphenyl	4.2	1	5.00	83 %	53-	132	8D28003	EPA 8270C	04/29/08 02:25	PL	



Description: MPT-09-MW03S-0408 **Lab Sample ID:** B802812-10 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 13:47Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

FL Petroleum Range Organics

Analyte [CAS Number] TPH (C8-C40) [NA] ^	<u>Results</u> 0.103	<u>Flag</u> I	<u>Units</u> mg/L	DF 1	MDL 0.042	PQL 0.170	Batch 8D28004	<u>Method</u> FLPRO	Analyzed 04/28/08 21:37	<u>By</u> PL	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
n-Nonatriacontane	0.0553	1	0.0500	111 %	37-	189	8D28004	FLPRO	04/28/08 21:37	PL	
o-Terphenyl	0.108	1	0.100	108 %	68-	118	8D28004	FLPRO	04/28/08 21:37	PL	



Description: MPT-16-FB1-0408 **Lab Sample ID:** B802812-11 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 14:35Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	Batch	<u>Method</u>	Analyzed	By	<u>Notes</u>
Benzene [71-43-2] ^	0.23	U	ug/L	1	0.23	1.0	8D30017	EPA 8260B	04/30/08 20:39	JAL	
Ethylbenzene [100-41-4] ^	0.34	U	ug/L	1	0.34	1.0	8D30017	EPA 8260B	04/30/08 20:39	JAL	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.21	U	ug/L	1	0.21	1.0	8D30017	EPA 8260B	04/30/08 20:39	JAL	
Toluene [108-88-3] ^	0.34	I	ug/L	1	0.28	1.0	8D30017	EPA 8260B	04/30/08 20:39	JAL	
Xylenes (Total) [NA] ^	0.38	U	ug/L	1	0.38	1.0	8D30017	EPA 8260B	04/30/08 20:39	JAL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	53	1	50.0	106 %	80-	120	8D30017	EPA 8260B	04/30/08 20:39	JAL	
Dibromofluoromethane	55	1	50.0	110 %	70-	135	8D30017	EPA 8260B	04/30/08 20:39	JAL	
Toluene-d8	55	1	50.0	109 %	80-	120	8D30017	EPA 8260B	04/30/08 20:39	JAL	



Work Order: B802812

Description: MPT-16-FB1-0408 **Lab Sample ID:** B802812-11 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 14:35Project:Mayport Fuel FarmSampled By: Joe Gibson

Semivolatile Organic Compounds by GCMS SIM

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	<u>PQL</u>	Batch	Method	Analyzed	By	<u>Notes</u>
1-Methylnaphthalene [90-12-0]	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
2-Methylnaphthalene [91-57-6] ^	0.03	U	ug/L	1	0.03	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Acenaphthene [83-32-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Acenaphthylene [208-96-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Anthracene [120-12-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Benzo(a)anthracene [56-55-3] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Benzo(a)pyrene [50-32-8] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Benzo(b)fluoranthene [205-99-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Benzo(g,h,i)perylene [191-24-2] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Benzo(k)fluoranthene [207-08-9] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Chrysene [218-01-9] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Dibenzo(a,h)anthracene [53-70-3] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Fluoranthene [206-44-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Fluorene [86-73-7] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Naphthalene [91-20-3] ^	0.03	I	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Phenanthrene [85-01-8] ^	0.02	U	ug/L	1	0.02	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Pyrene [129-00-0] ^	0.01	U	ug/L	1	0.01	0.10	8D28003	EPA 8270C	04/29/08 02:46	PL	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
p-Terphenyl	4.1	1	5.00	82 %	53-	132	8D28003	EPA 8270C	04/29/08 02:46	PL	· · · · · · · · · · · · · · · · · · ·



Description: MPT-16-FB1-0408 **Lab Sample ID:** B802812-11 **Received:** 04/24/08 16:44

Matrix:Ground WaterSampled: 04/24/08 14:35Project:Mayport Fuel FarmSampled By: Joe Gibson

Work Order: B802812

FL Petroleum Range Organics

Analyte [CAS Number] TPH (C8-C40) [NA] ^	<u>Results</u> 0.143	<u>Flag</u> I	<u>Units</u> mg/L	DF 1	MDL 0.042	PQL 0.170	Batch 8D28004	Method FLPRO	Analyzed 04/28/08 22:00	<u>By</u> PL	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
n-Nonatriacontane	0.0486	1	0.0500	97 %	<i>37-</i>	189	8D28004	FLPRO	04/28/08 22:00	PL	
o-Terphenyl	0.0940	1	0.100	94 %	68-	118	8D28004	FLPRO	04/28/08 22:00	PL	



Volatile Organic Compounds by GCMS - Quality Control

Batch 8D30017 - EPA 5030B_MS

Blank (8D30017-BLK1)

Prepared: 04/30/2008 09:42 Analyzed: 04/30/2008 12:23

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Methyl-tert-Butyl Ether	0.21	U	1.0	ug/L							
Benzene	0.23	U	1.0	ug/L							
Toluene	0.28	U	1.0	ug/L							
Ethylbenzene	0.34	U	1.0	ug/L							
Xylenes (Total)	0.38	U	1.0	ug/L							
Surrogate: Dibromofluoromethane	54			ug/L	50.0		108	70-135			
Surrogate: Toluene-d8	55			ug/L	50.0		110	80-120			
Surrogate: 4-Bromofluorobenzene	53			ug/L	50.0		107	80-120			

LCS (8D30017-BS1)

Prepared: 04/30/2008 09:42 Analyzed: 04/30/2008 12:56

				Spike	Source		%REC		RPD	
Analyte	Result	Flag PC	L Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Methyl-tert-Butyl Ether	17	1	0 ug/L	20.0		84	67-125			
Benzene	19	1	0 ug/L	20.0		95	80-130			
Toluene	19	1	0 ug/L	20.0		94	80-124			
Ethylbenzene	20	1	0 ug/L	20.0		99	80-127			
m,p-Xylenes	38	2	0 ug/L	40.0		96	80-132			
o-Xylene	19	1	0 ug/L	20.0		96	80-120			
Surrogate: Dibromofluoromethane	53		ug/L	50.0		106	70-135			
Surrogate: Toluene-d8	54		ug/L	50.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	55		ug/L	50.0		110	80-120			

Matrix Spike (8D30017-MS1)

Source: B802812-07

Prepared: 04/30/2008 09:42 Analyzed: 04/30/2008 13:29

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Methyl-tert-Butyl Ether	20		1.0	ug/L	20.0	0.21 U	100	67-125			
Benzene	22		1.0	ug/L	20.0	0.23 U	110	80-130			
Toluene	22		1.0	ug/L	20.0	0.28 U	109	80-124			
Ethylbenzene	22		1.0	ug/L	20.0	0.34 U	111	80-127			
m,p-Xylenes	46		2.0	ug/L	40.0	0.38 U	116	80-132			
o-Xylene	22		1.0	ug/L	20.0	0.22 U	110	80-120			
Surrogate: Dibromofluoromethane	55			ug/L	50.0		109	70-135			
Surrogate: Toluene-d8	54			ug/L	50.0		109	80-120			
Surrogate: 4-Bromofluorobenzene	55			ug/L	50.0		109	80-120			

Matrix Spike Dup (8D30017-MSD1)

Source: B802812-07

Prepared: 04/30/2008 09:42 Analyzed: 04/30/2008 14:02

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Methyl-tert-Butyl Ether	19		1.0	ug/L	20.0	0.21 U	94	67-125	6	36	
Benzene	21		1.0	ug/L	20.0	0.23 U	105	80-130	5	26	
Toluene	21		1.0	ug/L	20.0	0.28 U	103	80-124	6	26	
Ethylbenzene	21		1.0	ug/L	20.0	0.34 U	106	80-127	5	30	
m,p-Xylenes	42		2.0	ug/L	40.0	0.38 U	104	80-132	10	32	
o-Xylene	20		1.0	ug/L	20.0	0.22 U	102	80-120	7	26	



Volatile Organic Compounds by GCMS - Quality Control

Batch 8D30017 - EPA 5030B_MS

Matrix Spike Dup (8D30017-MSD1) Continued

Source: B802812-07

Prepared: 04/30/2008 09:42 Analyzed: 04/30/2008 14:02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	54			ug/L	50.0		109	70-135			
Surrogate: Toluene-d8	56			ug/L	50.0		111	80-120			
Surrogate: 4-Bromofluorobenzene	53			ug/L	50.0		106	80-120			

Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 8D28003 - EPA 3510C_MS

Blank (8D28003-BLK1)

Prepared: 04/28/2008 12:34 Analyzed: 04/28/2008 22:56

	Dogula	- Flan	DOL	Haita	Spike	Source	0/ DEC	%REC	DDD	RPD	Notes
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Naphthalene	0.02	U	0.10	ug/L							
2-Methylnaphthalene	0.03	U	0.10	ug/L							
1-Methylnaphthalene	0.02	U	0.10	ug/L							
Acenaphthylene	0.01	U	0.10	ug/L							
Acenaphthene	0.02	U	0.10	ug/L							
Fluorene	0.02	U	0.10	ug/L							
Phenanthrene	0.02	U	0.10	ug/L							
Anthracene	0.02	U	0.10	ug/L							
Fluoranthene	0.01	U	0.10	ug/L							
Pyrene	0.01	U	0.10	ug/L							
Benzo(a)anthracene	0.02	U	0.10	ug/L							
Chrysene	0.01	U	0.10	ug/L							
Benzo(b)fluoranthene	0.02	U	0.10	ug/L							
Benzo(k)fluoranthene	0.02	U	0.10	ug/L							
Benzo(a)pyrene	0.01	U	0.10	ug/L							
Indeno(1,2,3-cd)pyrene	0.02	U	0.10	ug/L							
Dibenzo(a,h)anthracene	0.01	U	0.10	ug/L							
Benzo(g,h,i)perylene	0.02	U	0.10	ug/L							
Surrogate: p-Terphenyl	4.6			ug/L	5.00		92	53-132			

LCS (8D28003-BS1)

Prepared: 04/28/2008 12:34 Analyzed: 04/28/2008 23:17

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Naphthalene	1.3		0.10	ug/L	2.00		64	44-120			
2-Methylnaphthalene	1.4		0.10	ug/L	2.00		68	39-121			
1-Methylnaphthalene	1.4		0.10	ug/L	2.00		69	41-120			
Acenaphthylene	1.5		0.10	ug/L	2.00		73	40-120			
Acenaphthene	1.4		0.10	ug/L	2.00		71	49-120			
Fluorene	1.6		0.10	ug/L	2.00		78	49-120			
Phenanthrene	1.5		0.10	ug/L	2.00		77	56-120			
Anthracene	1.6		0.10	ug/L	2.00		78	48-120			
Fluoranthene	1.9		0.10	ug/L	2.00		95	59-128			
Pyrene	1.8		0.10	ug/L	2.00		89	57-124			
Benzo(a)anthracene	1.6		0.10	ug/L	2.00		79	53-120			
Chrysene	1.5		0.10	ug/L	2.00		74	59-128			
Benzo(b)fluoranthene	1.8		0.10	ug/L	2.00		90	59-120			



Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 8D28003 - EPA 3510C_MS

LCS (8D28003-BS1) Continued

Prepared: 04/28/2008 12:34 Analyzed: 04/28/2008 23:17

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Benzo(k)fluoranthene	1.6		0.10	ug/L	2.00		82	53-128			
Benzo(a)pyrene	1.7		0.10	ug/L	2.00		86	44-120			
Indeno(1,2,3-cd)pyrene	1.1		0.10	ug/L	2.00		54	34-120			
Dibenzo(a,h)anthracene	1.1		0.10	ug/L	2.00		56	35-122			
Benzo(g,h,i)perylene	0.96		0.10	ug/L	2.00		48	41-120			
Surrogate: p-Terphenyl	4.4			ug/L	5.00		89	53-132			

Matrix Spike (8D28003-MS1)

Source: B802812-07

Prepared: 04/28/2008 12:34 Analyzed: 04/28/2008 23:38

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Naphthalene	1.4		0.10	ug/L	2.00	0.02 U	68	44-120			
2-Methylnaphthalene	1.4		0.10	ug/L	2.00	0.03 U	71	39-121			
1-Methylnaphthalene	1.4		0.10	ug/L	2.00	0.02 U	71	41-120			
Acenaphthylene	1.5		0.10	ug/L	2.00	0.01 U	74	40-120			
Acenaphthene	1.4		0.10	ug/L	2.00	0.02 U	72	49-120			
Fluorene	1.6		0.10	ug/L	2.00	0.02 U	80	49-120			
Phenanthrene	1.5		0.10	ug/L	2.00	0.02 U	77	56-120			
Anthracene	1.6		0.10	ug/L	2.00	0.02 U	81	48-120			
Fluoranthene	1.9		0.10	ug/L	2.00	0.01 U	93	59-128			
Pyrene	1.8		0.10	ug/L	2.00	0.01 U	88	57-124			
Benzo(a)anthracene	1.6		0.10	ug/L	2.00	0.02 U	78	53-120			
Chrysene	1.5		0.10	ug/L	2.00	0.01 U	76	59-128			
Benzo(b)fluoranthene	1.8		0.10	ug/L	2.00	0.02 U	90	59-120			
Benzo(k)fluoranthene	1.7		0.10	ug/L	2.00	0.02 U	86	53-128			
Benzo(a)pyrene	1.7		0.10	ug/L	2.00	0.01 U	85	44-120			
Indeno(1,2,3-cd)pyrene	1.1		0.10	ug/L	2.00	0.02 U	54	34-120			
Dibenzo(a,h)anthracene	1.1		0.10	ug/L	2.00	0.01 U	56	35-122			
Benzo(g,h,i)perylene	0.88		0.10	ug/L	2.00	0.02 U	44	41-120			
Surrogate: p-Terphenyl	4.3			ug/L	5.00		87	53-132			

Matrix Spike Dup (8D28003-MSD1)

Source: B802812-07

Prepared: 04/28/2008 12:34 Analyzed: 04/28/2008 23:59

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Naphthalene	1.4		0.10	ug/L	2.00	0.02 U	68	44-120	0.1	31	
2-Methylnaphthalene	1.4		0.10	ug/L	2.00	0.03 U	69	39-121	2	30	
1-Methylnaphthalene	1.4		0.10	ug/L	2.00	0.02 U	69	41-120	3	30	
Acenaphthylene	1.4		0.10	ug/L	2.00	0.01 U	71	40-120	5	21	
Acenaphthene	1.4		0.10	ug/L	2.00	0.02 U	70	49-120	4	24	
Fluorene	1.5		0.10	ug/L	2.00	0.02 U	76	49-120	5	19	
Phenanthrene	1.5		0.10	ug/L	2.00	0.02 U	74	56-120	4	14	
Anthracene	1.6		0.10	ug/L	2.00	0.02 U	79	48-120	3	13	
Fluoranthene	1.8		0.10	ug/L	2.00	0.01 U	88	59-128	5	10	
Pyrene	1.7		0.10	ug/L	2.00	0.01 U	83	57-124	6	10	
Benzo(a)anthracene	1.5		0.10	ug/L	2.00	0.02 U	76	53-120	3	11	
Chrysene	1.4		0.10	ug/L	2.00	0.01 U	72	59-128	5	10	



Semivolatile Organic Compounds by GCMS SIM - Quality Control

Batch 8D28003 - EPA 3510C_MS

Matrix Spike Dup (8D28003-MSD1) Continued

Source: B802812-07

Prepared: 04/28/2008 12:34 Analyzed: 04/28/2008 23:59

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Benzo(b)fluoranthene	1.7		0.10	ug/L	2.00	0.02 U	85	59-120	6	17	
Benzo(k)fluoranthene	1.6		0.10	ug/L	2.00	0.02 U	81	53-128	6	13	
Benzo(a)pyrene	1.6		0.10	ug/L	2.00	0.01 U	82	44-120	4	12	
Indeno(1,2,3-cd)pyrene	1.1		0.10	ug/L	2.00	0.02 U	54	34-120	0.6	13	
Dibenzo(a,h)anthracene	1.1		0.10	ug/L	2.00	0.01 U	54	35-122	3	19	
Benzo(g,h,i)perylene	0.88		0.10	ug/L	2.00	0.02 U	44	41-120	0.3	16	
Surrogate: p-Terphenyl	4.1			ug/L	5.00		83	53-132			

FL Petroleum Range Organics - Quality Control

Batch 8D28004 - EPA 3510C

Blank (8D28004-BLK1)

Prepared: 04/28/2008 12:36 Analyzed: 04/28/2008 16:58

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
TPH (C8-C40)	0.042	U	0.170	mg/L							
Surrogate: n-Nonatriacontane	0.0300			mg/L	0.0500		60	37-189			
Surrogate: o-Terphenyl	0.0885			mg/L	0.100		88	68-118			

LCS (8D28004-BS1)

Prepared: 04/28/2008 12:36 Analyzed: 04/28/2008 17:22

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
TPH (C8-C40)	1.79		0.170	mg/L	1.70		105	55-118			
Surrogate: n-Nonatriacontane	0.0481			mg/L	0.0500		96	42-193			
Surrogate: o-Terphenyl	0.0972			mg/L	0.100		97	82-142			

Matrix Spike (8D28004-MS1)

Prepared: 04/28/2008 12:36 Analyzed: 04/28/2008 17:45

Source: B802812-07

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPH (C8-C40)	1.63		0.170	mg/L	1.70	0.0592	93	65-126			
Surrogate: n-Nonatriacontane	0.0440			mg/L	0.0500		88	37-189			
Surrogate: o-Terphenyl	0.0886			mg/L	0.100		89	68-118			

Matrix Spike Dup (8D28004-MSD1)

Prepared: 04/28/2008 12:36 Analyzed: 04/28/2008 18:08

Source: B802812-07

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	PQL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
TPH (C8-C40)	1.76		0.170	mg/L	1.70	0.0592	100	65-126	8	15	
Surrogate: n-Nonatriacontane	0.0491			mg/L	0.0500		98	37-189			
Surrogate: o-Terphenyl	0.0938			mg/L	0.100		94	68-118			



FLAGS/NOTES AND DEFINITIONS

PQL: Practical Quantitation Limit.
Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
Estimated value. The associated sample note or project narrative indicate the causative reason.
Off-scale low; Actual value is known to be less than the value given.
Off-scale high; Actual value is known to be greater than value given.
Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
Presumptive evidence of presence of material.
Sampled, but analysis lost or not performed.
Sample exceeded the accepted holding time.
Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
Indicates that the compound was analyzed for but not detected.
Indicates that the analyte was detected in both the sample and the associated method blank.
The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Too many colonies were present (TNTC); the numeric value represents the filtration volume.
Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
Not reported due to interference.



FROUECT MANAGER FROUECT MANAGER FROUECT MANAGER FROUECT MANAGER FROUECT MANAGER FROUE CAST FROUE WINNER FROU WINNER FR	LABORATORY NAME AND CONTACT:
MAPPLE ID The Container of the properations Leder Container type	
Саквевумувиц и имвек О сортон ю О сортон о сортон ю О сортон о сорто	ADDRESS FROM ALLA DANK Ct. St 31
SAMPLE ID SAMPLE ID	E 33.216
SAMPLE ID SAMPLE ID	11/6/6/
SAMPLE ID SAMPLE ID	\$657 - 12% (5)
SAMPLE ID SAMPLE ID 1 - F F - Trip biant T - 98 - M w 135 - 04 98 FF-Mw 035 - 04 08 16 - M w 035 - 04 08 17 - F F - M w 035 - 04 08 18 - M w 035 - 04 08 19 - M w 035 - 04 08 10 - M w 035 - 04 08 11 - M w 035 - 04 08 12 - M w 035 - 04 08 13 - M w 035 - 04 08 14 - M w 035 - 04 08 15 - M w 035 - 04 08 16 - M w 035 - 04 08 17 - M w 035 - 04 08 18 - M w 035 - 04 08 19 - M w 035 - 04 08 10 - M w 035 - 04 08 11 - M w 035 - 04 08 12 - M w 035 - 04 08 13 - M w 035 - 04 08 14 - M w 035 - 04 08 15 - M w 035 - 04 08 16 - M w 035 - 04 08 17 - M w 035 - 04 08 18 - M w 035 - 04 08 19 - M w 035 - 04 08 10 - M w 035 - 04 08 11 - M w 035 - 04 08 12 - M w 035 - 04 08 13 - M w 035 - 04 08 14 - M w 035 - 04 08 15 - M w 035 - 04 08 16 - M w 035 - 04 08 17 - M w 035 - 04 08 18 - M w 035 - 04 08 19 - M w 035 - 04 08 10 - M w 035 - 04 08 10 - M w 035 - 04 08 11 - M w 035 - 04 08 12 - M w 035 - 04 08 13 - M w 035 - 04 08 14 - M w 035 - 04 08 15 - M w 035 - 04 08 16 - M w 035 - 04 08 17 - M w 035 - 04 08 18 - M w 035 - 04 08 19 - M w 035 - 04 08 10 - M w 035 -	1
SAMPLE ID SAMPLE ID MPT-PF-Tripblant MPT-09-MW015-0408 MPT-16-MW035-0408	
MPT-PF-Tripbiant QC G 3 X MPT-98-MW135-0408 MPT-09-MW015-0408 MPT-16-MW035-0408 MPT-16-MW035-0408 MPT-16-MW035-0408 MPT-16-MW035-0408 MPT-16-MW035-0408 MPT-16-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408	COMMENTS
MPT-08-MW135-0408 MPT-09-MW015-0408 MPT-16-MW035-0408 MPT-16-F81-0408 MPT-16-F81-0408 MPT-16-F81-0408	Cool to 4°C
98 98 98 98 98 98 98 98 98 98	
MPT-FF-MW035-0408 MPT-16-MW035-0408 MPT-16-MW035-0408 MPT-16-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408	
28 Cow Co Co Co Co Co Co Co Co Co Co Co Co Co	
MPT-16-MW035-3408-M5 MPT-16-MW035-3408-M5 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-09-MW035-0408 MPT-16-F81-0408 MPT-16-F81-0408	
MPT-16-Mw35-34-6015D QC 6 6 X X X MPT-09-Mw38-0408 Cow 6 6 X X X MPT-09-Mw35-0408 Cow 6 6 X X X MPT-09-Mw35-0408 QC 6 6 X X X MPT-16-F81-0408	MS
MPT-FF. MW38-0408 GW G G X X X X X X X X X X X X X X X X	051
mpT-09.mw035-0408 Chw G 6 X X) mpT-09.mw035-0408 Chw G 6 X X I mpT-16-F81-0408 QC G 6 X X	
MpT-09-MW035-408 CW 6 6 X X X MpT-16-16-181-0408 QC 6 6 X X	
NPT-16-F81-0458	
	758#
1. RELINQUISHED BY 2-0. G-0. DATE TIME 1. RECEIVED BY	
_	DATE
3 RELINQUISHED BY 3 RECEIVED BY	DATE TIME

APPENDIX D

FIELD FORMS

08JAX00097 CTO 0031



PROJECT NAME :	INSTRUMENT NAME/MODEL:
SITE NAME:	MANUFACTURER:
PROJECT No.:	SERIAL NUMBER:

-									
Date	Instrument	Person			Instrument	nstrument Readings		Remarks	
of	I.D.	Performing	Pre-	Post-	Pre-	Post-	Standard	and	
Calibration	Number	Calibration	calibration	calibration	calibration	calibration	(Lot No.)	Comments	



Tetra Tech NUS, Inc. GROUNDWATER SAMPLE LOG SHEET

								Page_	of
[] Monito [] Other						Sample C.O.C. I Type of [] Low	Location: d By:		
SAMPLING DAT	Γ A :								
Date:		Color	рН	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time:		(Visual)	(S.U.)	(mS/cm)	(⁰ C)	(NTU)	(mg/l)	(%)	
Method:									
PURGE DATA:			1	1		1			
Date:		Volume	pН	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:			<u> </u>		 				
Monitor Reading	(ppm):		<u> </u>		<u> </u>				
Well Casing Diar	meter & Material								
Туре:									
Total Well Depth	(TD):				<u> </u>				
Static Water Lev	el (WL):								
One Casing Volu	ıme(gal/L):								
Start Purge (hrs)									
End Purge (hrs):									
Total Purge Time									
Total Vol. Purged									
	ECTION INFORMAT	TION:							
	Analysis		Preser	vative		Container Re	quirements		Collected
					<u> </u>				
					 				
OBSERVATION	S / NOTES:								
Circle if Applicable:						Signature(s)):		
MS/MSD	Duplicate ID No.:								



Tetra Tech NUS, Inc. GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Location: Weather Conditions: Tidally Influenced:		Yes No			Project No.: Personnel: Measuring Device: Remarks:			
Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments

^{*} All measurements to the nearest 0.01 foot

Standard Operating Procedure for Investigative Derived Waste

- 1. At Naval Station Mayport (NAVSTA), Investigative Derived Waste is defined as soil or water that is generated from the remedial investigation of contaminated sites. IDW can include, but not be limited to, drill cuttings, purge water, soil, sediment or decontamination water. Operations usually associated with IDW include soil and groundwater sampling, monitoring well installation and decontamination of equipment used for sampling and installation.
- 2. IDW will be containerized when generated and kept at the site of generation as coordinated with the tenant occupying the area. Drums can be moved to other locations in the general area to accommodate NAVSTA personnel movement or requirements within reason. A central location can be identified prior to the sampling event if in the best interest of the government.
- 3. IDW drums shall be clearly identified with "Awaiting Analytical" sticker visible containing contractor name and phone number, generation location, date of generation, NAVSTA point of contact, and contents of drum. A drum log using the format of Enclosure (1) shall be completed for each drum and provided to the NAVSTA point of contact when drum is generated. Drums shall be inspected weekly until disposal using Enclosure (2) and inspection form shall be faxed to NAVSTA Environmental Department. When sample results have been received, the analytical shall be provided to the NAVSTA point of contact for waste and disposal determination. The contractor shall be responsible for disposal of all IDW. IDW with analytical results less than Cleanup Target Levels identified in 62-777 Florida Administrative Code may be disposed onsite if sufficient soil is at location. IDW may not be disposed in storm drain or on an impervious surface. In certain conditions, non-hazardous IDW may be disposed through a sewer lift station to the Wastewater Treatment Plant with prior written approval by the Utility Engineer at Public Works Center Jacksonville.
- 4. If the IDW is identified as hazardous waste, the contractor shall manage drums per the NAVSTA Hazardous Waste Management Plan (SOPA(ADMIN) MYPTINST 5090.1F) and shall be disposed through the NAVSTA Hazardous Waste Storage Facility with the contractor paying disposal cost to PWC (2005 cost approximately \$1.75/pound). IDW that is not hazardous waste but does not meet the Target Levels to be disposed onsite, the contractor shall arrange for the IDW to be legally transported and disposed at an approved facility. The contractor will coordinate with NAVSTA personnel to sign the non-hazardous manifest as generator.

Naval Station Mayport Investigative Derived Waste Drum Log

Contractor Company Name:
Individual Name:
Location Name:(i.e. SWMU number, Bldg number)
Date of generation:
Expected date of results:
Drum Number:various (See Table Below for additional info.)(Use site # and unique drum number)

<u>Drum No.</u>	Type of Waste (i.e. drill cuttings, purge water)	Quantity of Waste (gals/lbs)	<u>Date</u>	Individual's Initials/ Name

Enclosure (1)

WEEKLY INVESTIGATIVE DERIVED WASTE INSPECTION CHECKLIST NAVAL STATION MAYPORT

This form is to be completed legibly by the contractor when conducting weekly inspections of IDW drums.

All discrepancies shall be corrected immediately. Failure to correct discrepancy(s) shall result in contractual action.

Dа	te:							
Inspector:								
Со	Company Name:							
		YES	NO					
1.	Are all containers properly labeled/dated?							
2.	Are containers compatible with contents?							
3.	Are all containers in good condition?							
4.	Are containers closed?							
5.	Are lids/caps/bolts/rings tight?							
6.	Are any containers dated longer than 60 days?							
7.	Number of containers inspected							
Comments:								
Date/nature of repairs or remedial actions:								
Copy to: NAVSTA Mayport N4E FAX: 270-7398								
(EACH FRIDAY)								
		Enclosure (2)						

Revised 1/24/2006